The Mining Journal

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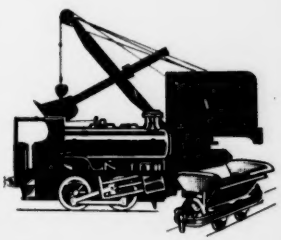
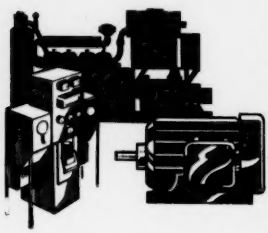
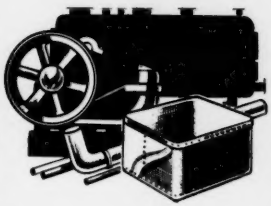
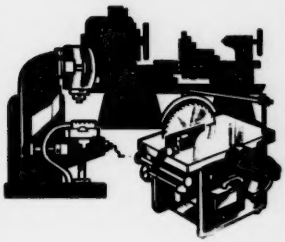
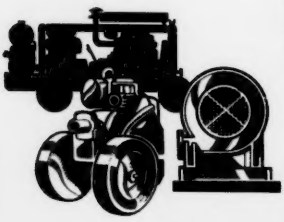
TWW and MINING











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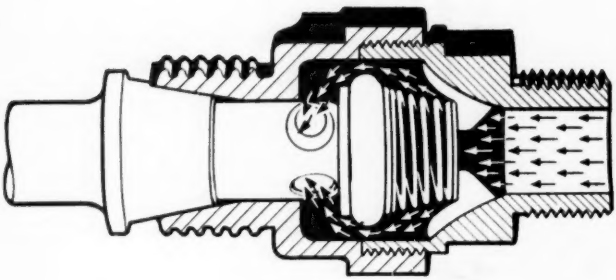

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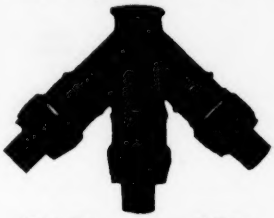

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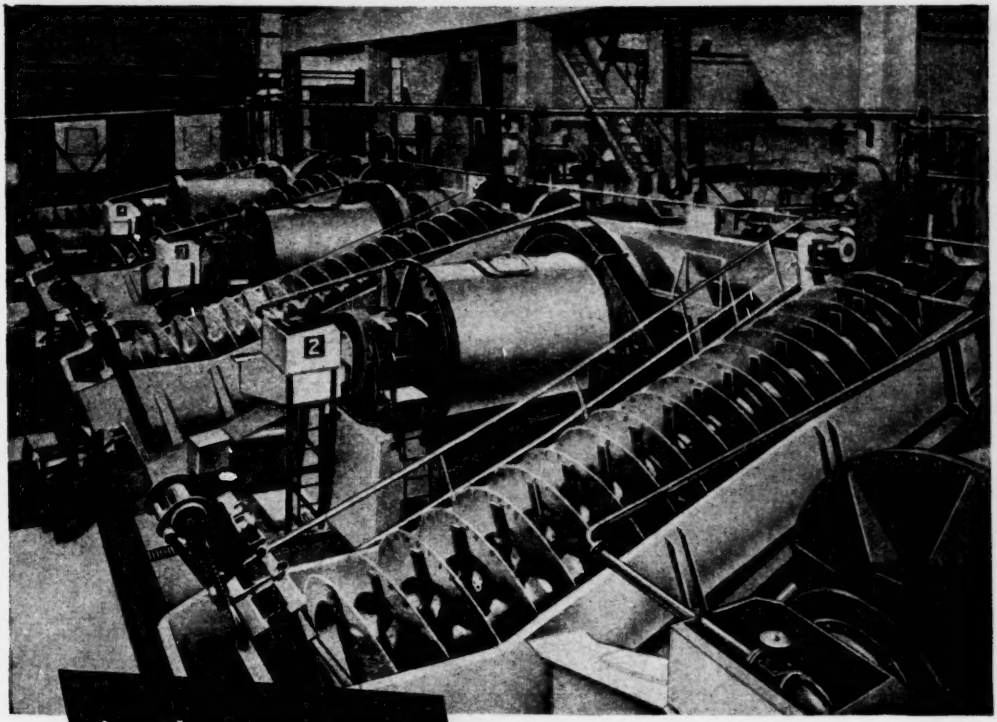

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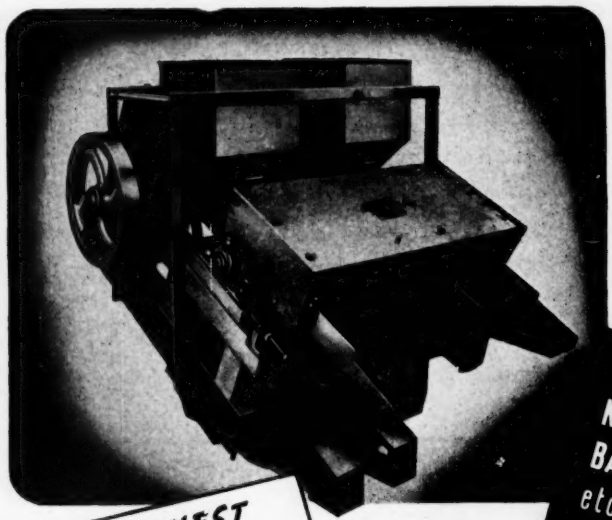

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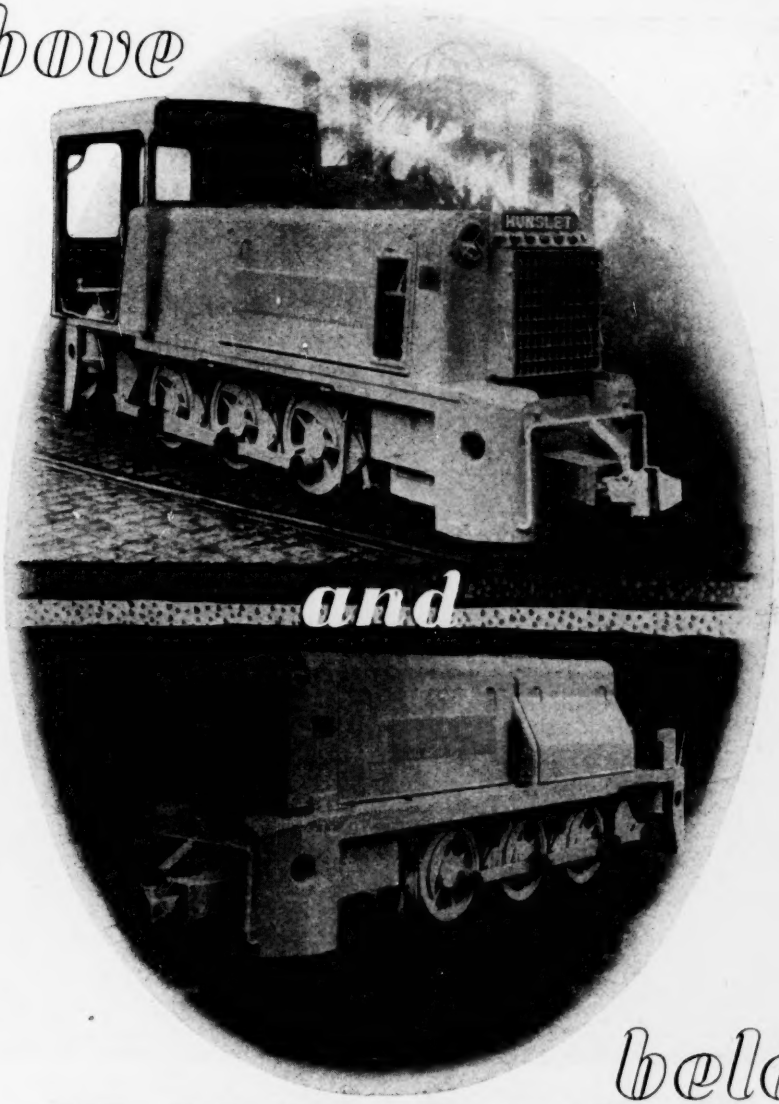

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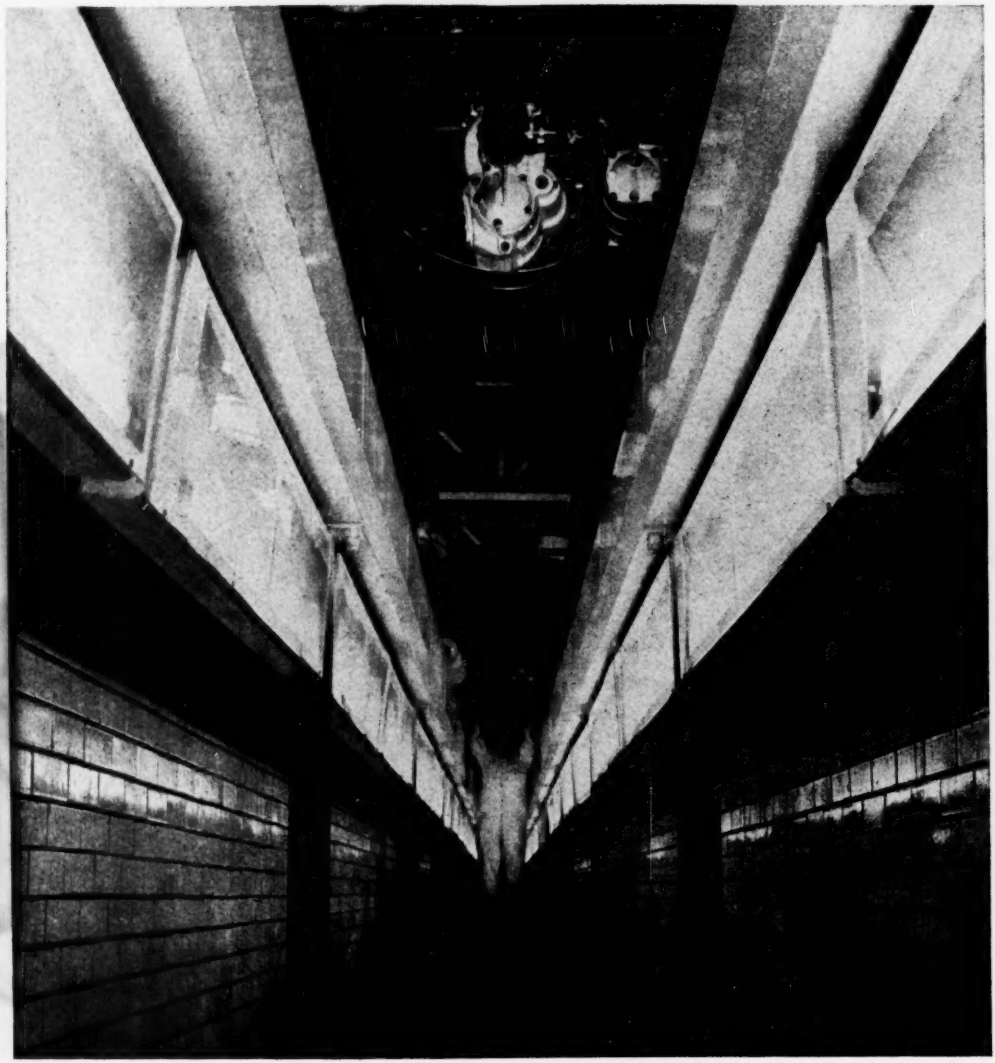

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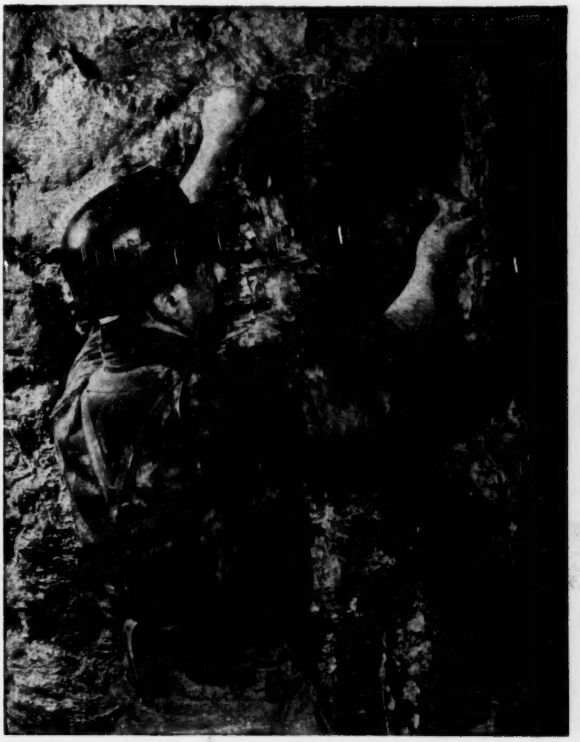

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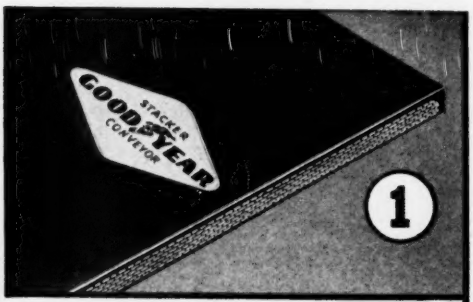

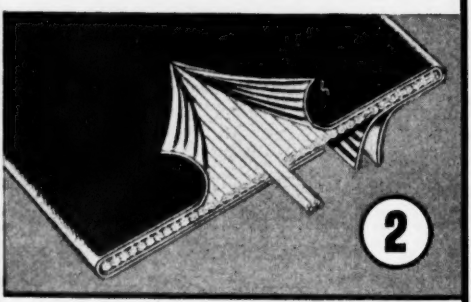

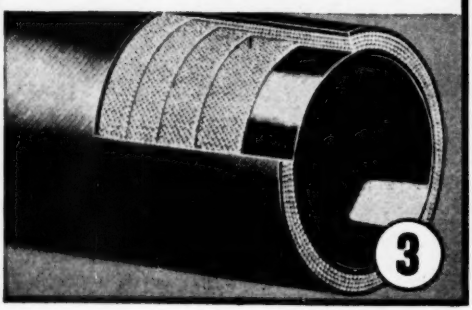

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The " Stacker " belt illustrated here is designed for installations which handle highly abrasive materials. Its tough resilient cover " gives " under impact and resists cutting. High grade bonding between the plies prevents separation under severe flexing. It is proofed against the ruining effects of mildew.

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The Mining Journal
Established 1835

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CONTENTS

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NOTES AND COMMENTS

Land Development Charges

The Government has lost no time in implementing the undertaking in the Queen's speech to deal with the Land Development Charges imposed under the Socialist Government's Town and Country Planning Act of 1947. From last Tuesday the development charge on land, the value of which is improved by engineering or mining operations, is abolished. Development charges on improvements increasing the value of the land to which they are applied, is a curious conception, except from the point of view of an extreme Socialist principle that only nationalized undertakings are legitimate and to be encouraged. One of the chief mischiefs connected with the legislation now to be amended was the uncertainty created. This has been felt particularly in regard to the acquisition of land for the development or extension of mining and cognate operations. Schemes have been held up or abandoned owing to the uncertainty as to how the development value is to be arrived at, for until the value of land to be worked for minerals is ascertained—which can only be after some years of development—it would seem quite impossible to fix a figure.

An interim Bill was introduced in the House of Commons on Tuesday and received a first reading, but this will be followed later by a main Bill which will deal *inter alia* with the power of local authorities to acquire by compulsory purchase where desirable; where these powers prove to be insufficient, they will be strengthened. The effect of the development levy has been very largely to kill any market in land values, and to a large extent the new proposals should put an end to this dead hand. When the interim Bill comes up for discussion in Parliament we shall be in a better position to appreciate the details of the Government's proposals and their probable effects.

Advances in Australian Coal Mining

Mechanization of collieries in Australia is advancing steadily, but the great obstacle in the path continues to be the mechanical extraction of pillars, which is still strongly opposed by the miners' leaders.

The general trend in transport is to the use of 10 ton capacity skips hauled by Diesel locomotives, with total loads per rake of 300 to 350 tons. Gathering will be done by storage battery locomotives, delivering to flats on the main tunnel haulage in tunnel-operated mines. Shaft capacity does not so far, permit the hoisting of 10 ton capacity cars, but thought is being given to the use of tipping skips, as used in metalliferous mines. At one large colliery, 10 ton cars deliver to underground bins, and from thence by a cross conveyor belt to the main conveyor belt system, operating in an incline cross-measure drift, to surface, a system which is capable of transporting 3,000 tons of coal per shift. Track gauge in the large collieries has been standardized at 3 ft. 6 in., using 80 lb. rails with 100 ft. radius turnouts on main roadways, and 45 lb. rails with 40 ft. radius turnouts in working places. Cutting and loading machines are either trackless, or carried on 3 ft. 6 in., gauge track. Cutters are capable of working a place 20 ft. wide, and shearing the full height of the seam —8 ft. or 9 ft.—is considered a necessary part of machine performance. Loading machines favoured have a capacity of up to eight tons per minute. A continuous mining machine has been introduced into one of the South Coast, New South Wales, mines, but information on performance is not yet available, beyond the fact that it is capable of working a face 15 ft. wide and 8 ft. high, at a rate of one ton per minute, given sufficient transport. Diesel locomotives used in New South Wales are powered by 204 h.p. engines transmitting through a Vulcan Sinclair hydraulic coupling to a four speed electro-pneumatic controlled four speed Wilson Drury epicyclic gear box. Four speeds are provided in each direction, maximum speed being 14 m.p.h. These locomotives are made by Malcolm Moore Ltd., in Australia. Roof bolting is rapidly finding favour. Output per man shift in the mines of Australian Iron & Steel Ltd., New South Wales, was two tons, prior to mechanization. Since mechanization of the mines, output has been increased to five tons per total employed. Figures issued by the Joint Coal Board for all New South Wales mines for the year 1951 give the total output per man shift for all employees as three tons. For the South Coast mines, in 1948, output was 2.7 tons per total employee, and in 1951 the output figure had risen to 3.4 tons, influenced largely by the collieries of Australian Iron & Steel.

The Paley Report View of Industrial Diamonds

In connection with the review of the industrial diamonds industry, given in our recent abstract of the *Jeweler's-Keystone* report on the Diamond Industry in 1951, it may perhaps be of interest to learn the view taken in the Paley Report of the prospects and problems of the industrial diamond.

The report says: with the indications of a substantial increase in free world demand for industrial diamonds in the coming 25 years, it is possible that the world cartel may act to restrain production sufficiently to maintain the present price, if not a higher one.

There are some indications on the other hand that consumers may in the future be less at the mercy of the cartel. The production of synthetic diamonds has been under constant study since the turn of the century, and although progress has been slow, recent reports suggest that the research may be on the threshold of success in the United States. Also a process reported in widespread use in Russia and now being introduced in the U.S., uses controlled erosion of high energy sparks to shape carbide tools and metal parts. If perfected, this process can not only partly displace industrial diamonds, but carbides as well. . . .

If the present trend towards increased application of industrial diamonds continues, it is clear that research in synthesis and conservation in use are necessary, supplemented by measures to prevent or alleviate the reduction of supply by the cartel. Security considerations, moreover, emphasizes the desirability of a freer market. . . . Present efforts to expand production in the free world outside of the cartel should be continued, and if possible intensified, and the possibilities of modifying the restrictive influences of the cartel explored.

The Mining Collection Re-opened

The Mining Collection at the Science Museum, South Kensington, was re-opened in much enlarged form on Tuesday by the Rt. Hon. Geoffrey Lloyd, P.C., M.P., Minister of Fuel and Power. The enlarged collection occupies an area of 9,000 sq. ft., and is so designed as to give the impression of being underground in mine workings. This basic conception is completely effective, and excellent use has been made of lighting to provide a factual effect to the life-size tableaux.

Sub-sections adjacent to these areas illustrate the historical development of many ancillary services connected with the industry, and indeed this quiet emphasis on the historical association is perhaps one of the most pleasing facets of the collection. It was revealing to see illuminated plaques in colour extracted from that valuable book, Agricola's *De Re Metallica*. It is difficult to recall a single department of mining endeavour, be it cutting, transport, illumination, ventilation or support, that is not given effective representation through a display that is itself enriched by the addition of historical reference.

In so far as modern underground practice is concerned, the life size figures of miners employed in operations relating to both coal and metalliferous mines are most realistic, and of marked value are the small wall insets exhibiting the various stoping and excavation methods used in metal mines.

The development and building of the collection has been made possible by the co-operation of the many manufacturers of mining equipment used in this country, and all the work involved in displaying the collection has been carried out by the Museum Workshops staff, with the exception of the plaster work in the imitation coal mining district. The Collection is now open to the public.

Western United States

(From Our Own Correspondent)

Portland, Oregon, November 10.

The general reaction of the mining industry toward the results of the Presidential election just concluded is favourable. At their conventions held last summer both parties adopted platforms containing planks favourable toward mining. The Republican platform was more specific, especially toward gold, and the industry, reviewing its experience of the past twenty years under Democratic policies, was inclined to feel that the party had its tongue in cheek when it made any promises. On the whole there is the feeling that the new administration will be more businesslike, effect economies and allow more latitude to private enterprise.

COLORADO

Resurrection Mining Co., owned equally by Newmont, U.S. Smelting and Hecla, has taken lease and option from Ibex Mining Co. of the latter's holdings in the Leadville district. These include the famous Little Johnny mine. In the days when Leadville attracted worldwide attention for its sensational high-grade gold and silver ores the ground embraced in this transaction was credited with a production of $150,000,000, almost all gold, of which $60,000,000 was attributed to Little Johnny. Now attention is being given to the same territory for the more prosaic lead and zinc. The group is opened by four vertical shafts and part of the ground is drained by the Yak tunnel.

Meanwhile at Leadville, American Smelting & Refining Co. is sinking a 1,000 ft. three-compartment shaft on Johnny Hill to give access to its Irene workings where development work over several years past has made a large tonnage of lead-zinc ore available. The new shaft will hoist this ore in one lift and do away with the present system of a winze, a connecting drift and a shaft.

MONTANA

Anaconda has now reached a sustained production of 5,000 tons of ore per day from the Greater Butte Project through the Kelley shaft and expects to double this by the end of the year. An auxilliary service shaft is being raised near the Kelley and when this is finished the supply compartment of the Kelley will be available for hoisting ore. Anaconda has also completed plans for a $45,000,000 aluminium plant to be built at Columbia Falls in Flathead County. The company has no aluminium ore deposits of its own so agreement has been made with Reynolds Metal Co. to supply alumina from the latter's plant at Corpus Christi, Texas.

U.S. Steel Corporation has taken a lease on a group of fluorspar claims near Darby and is shipping the ore to its steel plant at Geneva, Utah.

NEVADA

Three five-yard electric shovels and a fleet of 25-ton Diesel trucks are stripping at the rate of 40,000 tons per day at Anaconda's Yerington (Nevada) project. In the stripping is a considerable amount of mineralized rock too low in grade for the regular treatment and this is being segregated with the idea that it may be amenable to heap leaching later. Production of copper precipitate is scheduled for late 1953. Housing has been completed to the extent of 235 one-two- and three-bedroom houses, 16 dormitories and a mess hall.

Kaiser Aluminum & Chemical Corporation has completed a 100-ton fluorspar flotation mill for treatment of ores from its recently acquired Baxter mine at Gabbs. Concentrates will be shipped to Nicholas, California, for further treatment.

Australia

(From Our Own Correspondent)

Melbourne, November 1.

Great expansion in operations at the Mount Morgan copper mine, Queensland, is forecast, and the development of three major projects is estimated to require £A.2,000,000.

The greatest factor is the bringing into production of the Sugarloaf ore body which is very close to the main ore body, which is now being worked by open cut to a depth of 750 ft. Increase in the Australian price of copper to £350 per ton is a great incentive to the plans for increased production, to effect which work on preparation in the Sugarloaf section will be commenced almost immediately. Overburden, in a proportion to ore, of about 2 to 1, must be stripped for the working of the ore by open cut. This work is expected to take seven years at a cost of £A.1,000,000, and exploratory work by diamond drilling has already added over 7,000,000 tons to reserves, making the present total 14,500,000 tons. There is a considerable tonnage of lower grade pyritic material at Sugarloaf, and a recent report states that an addition to reserves of some 7,000,000 tons of pyritic material may soon be warranted.

FULL SCALE PYRITE PRODUCTION PLANNED

The second objective in expansion is the utilization of the pyrite in the ore bodies. With the world shortage of sulphur and the growing use of sulphuric acid, Australia must depend almost solely on pyrite for sulphur requirements, and it is considered that this resource at Mount Morgan offers a most attractive source of additional profit. Future plans include expenditure of £A.150,000 on plant for full scale pyrite production. A disability is that the location of the principal pyrite users is in the southern states, involving long transport distances and high freight charges. There is talk of the establishment in Queensland of superphosphate and ammonium sulphate manufacture, which Mount Morgan would be well situated to supply.

The third objective for the proposed capital increase is plant reconstruction, which the increased life of the mine is considered to warrant, in which direction further ore extensions are probable. Plant reconstruction is also considered as a way to important reduction in costs. Expenditure on this phase of the plans is estimated at £A.850,000. The proposals will necessitate issue of new shares; the earning capacity of the mine is expected to respond rapidly, and pyrite alone is looked to for an increase in the life of the mine of 50 per cent. An early step will be to increase the capacity of the smelting plant, an important stage in which work will be the enlargement of the reverberatory furnace.

In the company's last financial year, ended June 2, costs showed a substantial increase, which is inevitable under present economic conditions. The cost of mining any material—overburden and ore—was 6s. 5.24d. per ton compared with 5s. 6d. in the previous year; mining and treatment cost was 31s. 5.68d., against 24s. 2.8d. and smelting costs rose from £A.48 2s. 7d. to £A.53 2s. 3d. per ton of copper. This position will be considerably helped by the recent increase in the Australian price of copper to £A.350 per ton, but the sound—and at present impossible—way of approach is cost reduction, which can only be effected by reduction of the prevailing exorbitant rates of wages.

However, the company is making every effort to reduce its overall treatment costs, particularly in the smelting and refining of its concentrates. A new process, used in Canada, has been tried on its copper concentrates with encouraging results. This is a chemical reduction process whereby the copper is recovered as soluble copper sulphate and by the use of a reducing reagent, such as hydrogen, pure copper is obtained as a powder with ammonia sulphate as a by-product. Other new and promising hydrometallurgical processes are being experimented with and the chairman in his annual statement said that in one of the processes, Fluo Solids roasting, followed by leaching to recover both electrolytic copper and gold bullion without smelting has given extremely promising results.

BIG FUTURE FORECAST FOR MOUNT ISA

Operations at Mount Isa, Queensland, are attracting considerable attention at the moment, and competent opinion is very impressed by the possibilities before the company, so much so that it is forecast that the Mount Isa field will ultimately surpass Broken Hill, New South Wales.

Apart from the lead-silver-zinc operations at the main group of lodes, silver-lead deposits are being opened up at 11 miles north of Mount Isa and are regarded as of great importance. The new copper concentrating mill and smelter will be in operation early in the new year, with a production of 18,000 tons of copper per year from ore assaying about 4 per cent copper. The great copper ore body has, as yet, unknown vertical extension. It is parallel and close to the big lead lode, and it is remarkable that although so close, this lead lode carries no copper. Silver values in both lodes are low and neither carries gold. The company is installing an improved ventilation system, with provision for air cooling, at a cost that will probably reach £A.400,000.

BEACH SANDS TO BE DREDGED

There are very extensive deposits of zircon and rutile minerals, with associated ilmenite, and minor quantities of monazite, cassiterite, platinum and gold, in the beach sands and adjacent sand dunes along a stretch of 200 miles of the New South Wales-Queensland coast. Zinc Corporation is planning large scale operations at Stradbroke Island, Queensland, on comporatively low grade material, and it is understood that mining the sand will be by dredging. Despite the fact that at the present time, zircon is comparatively unsaleable, work is being carried on actively by most of the producers, who find a ready market for rutile concentrate. Apart from market problems, costs have become very heavy, one item being railway freights, which have been increased 200 per cent, without any consideration as to what the product can bear. While the rutile market alone is active, it is anticipated that demand for zircon will again become active. The beach sand deposits throughout contain more or less ilmenite, but the association of a small quantity of chromite makes this mineral unsaleable, consequently a substantial tonnage of ilmenite has to be dumped in the course of milling. Ilmenite for Australian industry has to be imported.

Discoveries of uranium continue to be reported from the Northern Territory and South Australia and receive much ill-considered Press publicity.

These reports, as published, should be received with much caution. That occurrences of potential importance exist at Rum Jungle in the Northern Territory, and at Radium Hill, in South Australia, is unquestioned, but it is difficult to assess the actual value of these finds, for the work is still exploratory and developmental. The Zinc Corporation will carry out the work at the former field, and it is stated that the company is to undertake deep drilling at the latter.

The Future of Aluminium

As the authors of the Paley Report have already pointed out (see *The Mining Journal*, September 19, page 310), the vast increase in future consumption predicted for the aluminium industry presupposes a degree of substitution and development of new uses which at present can only be surmised. The particular interest of the report which follows lies in the fact that it goes some way towards adumbrating the directions in which aluminium consumption may be expected to develop.

Addressing the National Association at its Second Annual Convention of Aluminium Distributors, Mr. S. S. Inch, Vice-President in charge of the Kaiser Aluminum & Chemical Sales Co., emphasized that the immense growth potential of the aluminium industry was largely unrealized outside those engaged in its production.

Aluminium hitherto had been hamstrung by shortage of supply, as production has consistently lagged behind demand. With sufficient capacity now in hand potential demand would be freed from this incubus. Those in the industry did not anticipate that the basic market structure on the whole would change sharply, generally they were looking forward to the present aluminium using industries using substantially more of the metal.

THE RESPONSE TO INCREASED PRODUCTION

To-day, the aluminium industry was shipping at the rate of some 100,000 s.tons a month and for 1954, shipments would total 1,250,000 s.tons. The new plants now approaching completion would not get into their stride until late next year. During 1954 output of primary metal should rise to some 1,500,000 s.tons; in 1950 the output was 750,000 s.tons.

So much for output. What could only be estimated was the response of industry to increased production. Last August it was thought that selling would be hard in the fourth quarter. However, an upsurge in buying had appeared and it is perhaps not too optimistic to say that there was a strong probability of sales continuing into the second quarter of next year. Producers were not disturbed by the fact that capacity was being increased faster than the normal expansion of the market, because this rapid expansion of production would, in their opinion, prove a definite asset. The increased capacity to produce would expand the market. Other important and closely related factors were aluminium's strong price advantage over copper and the other non-ferrous metals, and the great technological strides which the industry had made in the past ten years, to say nothing of the more widespread familiarity with the metal. In short, the so-called "too rapid" expansion of the industry should prove to be the tonic needed to boost supply, and consequently demand.

The aluminium industry to-day was facing the same kind of supply and demand situation as it did in 1940, and was on the threshold of a gigantic expansion of primary capacity. During World War II the economic capacity of the industry was tripled and in 1945 and 1946 the outlook was regarded pessimistically. During the five postwar years, however, the commercial market absorbed more aluminium than it had done in the first fifty years of the existence of the industry. Some 4,500,000 s.tons were consumed in this period, but something like 6,000,000 s.tons would probably have been used if they had been available. It was impossible to say how elastic aluminium demand might prove given a really adequate supply of metal. He said six estimates had been put forward for 1960 ranging between 2,050,000 s.tons and 3,400,000 s.tons.

What were these new uses now being canvassed? Future uses of aluminium which could be counted upon to expand the market could be numbered in thousands, some large, and many individually small but collectively a great business potential.

The greatest growth was likely to be seen in the transportation and building fields. The next ten years should witness a large-scale conversion of the automobile industry to the use of aluminium in cylinder heads, die-cast trim, hardware and possibly even in cylinder blocks. A tremendous growth seemed likely in the use of aluminium in the building field, notably screen doors, aluminium roofs, spandrils, light weight curtain walls, conduit and duct work, radiant heating panels and the like.

In the electrical field great strides were likely because of the strong price advantage of the metal over copper which should at least be maintained, if not increased. Conductor products offering particularly great potentials were building wire and weatherproof wire.

Machinery and equipment should consume at least 200,000 s.tons by 1960, and the utensil industry possibly up to 235,000 s.tons. Aluminium foil it was hoped would consume about 400,000 s.tons by the date indicated in which the pie-pan business, paper-laminated oil drums and printed electrical circuits would play an important part.

GROWING IMPORTANCE TO AMERICAN ECONOMY

Aluminium was becoming one of the key metals of American economy and was destined to become a metal for mass production. Among some of the possible highlights might be cited the development of aluminium cast engine blocks for automobiles which could increase the present average consumption of about 80 lb. per car to hundreds of millions of pounds yearly. Aluminium windows had already captured about a third of the total metal window business in the U.S. A phase now being developed was the die-cast window and this could total up to a fantastic amount. Much work was being done in the production of aluminium telephone wire, and he believed that this could be successfully produced. Several major railways were operating experimental hopper cars and a railway equipment manufacturing firm was building 200 tank cars for the shipment of acids.

They had all read of the new Atlantic liner with its wide uses of the metal in many novel directions. The aluminium lifeboats alone saved 50 per cent of the weight as well as about $100 yearly for maintenance costs. Within a comparably short time aluminium van trailers had risen from 5 to 40 per cent of the output and might reach 80 per cent as soon as the metal was available. Trucks were rapidly converting to aluminium forged wheels and hubs. One of the biggest busline operators had standardized on aluminium forged buswheels. Aluminium screening was rapidly taking over a major portion of the market, being preferable to bronze for price and galvanized screens for use. One of the most promising of all the new developments was aluminium coated steel. An estimated consumption of 100,000 s.tons a year here was extremely conservative.

Miscellaneous uses included television-antennae, refrigerator shelves, zippers, aluminium wool, eyelets for shoes, heat exchangers, irrigation pipes, fruit lugs, trays and berry boxes, pails, bottle cases, transmission towers for electrical substations, light bulb bases, reflectors for street light fixtures, cable sheathing, subway cars, destroyers, licence plates, scaffolding, furniture, prefabricated buildings, venetian blinds, awnings, nails, etc.

Prospecting with the Diamond Drill for Lead-Zinc Ores in the British Isles

The price of base metals and the economic straits of Britain are renewing attention to home resources, and numerous opportunities exist for the discovery of new ore deposits by means of diamond drilling, particularly on the margins of old orefields. Careful historical and geological research are a necessary preliminary and in the following paper, which is condensed from the *Bulletin of the Institution of Mining and Metallurgy, No. 551*, the authors, Mr. J. B. Dennison, A.R.S.M., and Mr. W. W. Varvill, M.Sc., who are respectively Consulting Engineer in England and Engineer in Charge of prospecting operations in the British Isles for Johannesburg Consolidated Investment Co., Ltd., present descriptions of recent drilling activities in Wales, Derbyshire, and Eire. In all three cases unworked reserves have been located and two mines have already been brought to production. It is unfortunate that lack of space prevents a more complete reproduction of this excellent paper, particularly in relation to the author's remarks on aspects of drilling operations and on the recovery of good cores.

For the successful use of the diamond drill in search of unworked ore in the vicinity of an old mining field, the area and site selected must fulfil certain requirements and these should be very carefully studied before any decision is made to drill. The more important items to be considered are (1) the limits to the practicable depth to which inclined holes can be drilled; (2) the influence of old workings; (3) the core recovery from different veins; (4) the importance of fault lines as indicators of veins and (5) siting the first hole.

DRILLING AT LLANRWST, NORTH WALES

The Llanrwst district mining areas are all on the high land to the west of the Conway and almost all the workings have been above adit level, the topography being such as to permit mining on nearly all the veins through adits for another 300-400 ft. before reaching the river level.

The range and extent of the old shallow workings is considerable and the Geological Survey has identified some 70-80 veins in an area of about six sq. miles. The terrain is a dissected plateau rising to nearly 1,000 ft. above sea level with escarpments formed by the harder volcanic rocks and scree-covered slopes on the sedimentary rocks.

The veins can be divided roughly into two groups, those with a N-S strike and those with an E-W strike. The former are the more numerous, but the latter appear to be longer. The E-W variety are the more compact and probably the most productive, whilst the N-S veins tend to form shatter zones with widespread low-grade mineralization.

The master vein which was selected for testing by drilling is named the Principal Lode. The lowest level on which this vein has hitherto been worked is entered through the Parc Adit, the entrance of which is about 400 ft. above the level of the Conway Valley. The total proved length of the Principal Lode is about 6,800 ft.

A series of diamond drill-holes was planned at intervals along the strike of this vein on the north side of the supposed line of outcrop, and in each case they were directed so as to intersect the vein at a vertical depth of 200-300 ft. below the lowest old workings. Six holes were planned and started and five were completed after successfully intersecting the vein; the sixth was not completed because it was considered that sufficient proof of the existence of the vein had been obtained in the others to justify the starting of mining operations. In one hole an additional vein, hitherto unknown, was cut before the main objective was reached; the hole duly cut the Principal Lode after being continued to the planned depth. Two other holes passed through unidentified mineralized zones before reaching their main objective; in addition deflections were drilled from three of the holes, one hole having two deflections, and in every case the lode was intersected.

The holes were spaced at fairly regular intervals, the two end holes being about 5,700 ft. apart. At all points where the vein was intersected sufficient core was recovered to allow an assay, and in every case a payable grade of lead and zinc combined was indicated over a stoping width. The rounded and polished nature of the ends of the galena-bearing pieces of core showed that there had been loss by abrasion. The average of all the core assays, adjusted to a stoping width, was 5.8 per cent Pb and 2.0 per cent Zn, or 7.8 per cent combined metals. Underground sampling along the lode for a distance of 2,200 ft. had given an average of roughly 9 per cent combined metals.

CONCLUSIONS ON THE LLANRWST DRILLING

The results of the five bore-hole intersections with the Principal Lode described indicate the probable existence of 450,000 tons of ore of payable grade in this vein alone, taking no account of the numerous branches and cross veins known to exist. This tonnage is not "proved" in the conventional ore reserve sense, but its existence has been shown to be sufficiently probable to justify expenditure on underground development with a minimum financial risk. This was achieved with less than 3,000 ft. of drilling, including the abandoned hole, so that the cost per ton of ore, for prospecting, is likely to be very small.

The authors claim that the successful results obtained at Llanrwst justify a belief that there is wide scope in the old mining fields for the employment of the diamond drill in locating fresh ore reserves in Britain. No doubt there are other districts in the Ordovician and Silurian areas in which equally successful results can be expected, but the Carboniferous Limestone Series presents the widest scope, mainly owing to the proximity of potential ore-bearing ground to the surface.

DRILLING AT ABBEYTOWN MINES

The second district in the British Isles in which important reserves of lead-zinc ore have recently been proved by diamond drilling is at Abbeytown Mines, Ballisodare, Co. Sligo, Eire. The ore deposits at Abbeytown differ from the lodes of Llanrwst or the "ribbon" veins of the Pennine orefields and take the form of large low-grade disseminated replacement deposits.

At Abbeytown it was decided to drill a series of vertical holes covering an area of a few acres in order to determine (*a*) if the deposit could be quarried; (*b*) the depth and area of the deposit; and (*c*) an approximate estimate of the grade and tonnage.

Replacement deposits of this type are usually very irregular in shape, although their outlines conform to the system of fissures from which they originated, and consequently, through lack of knowledge of the form of the deposit, the holes were spaced at close intervals to form a network of triangles over what was guessed to be the

mineralized area. The holes drilled by previous parties were of assistance in this.

The new holes were planned to form a close network around what appeared to be the focal point of the old workings and within this network it has been possible to delimit an area enclosing 16 holes, all of which showed some degree of mineralization. This covers roughly five acres where the ore has been found sufficiently near the surface to be quarried. The holes on the south and west of this area show mineralization, thus indicating that the limits of the deposit have not yet been found. This has since been confirmed by underground mining. All the holes passed through the Index Bed and most discovered an enriched zone at this horizon.

Calculations based on the results of the drilling indicate that there are probably 750,000 tons of ore of profitable grade within the proved area, after making allowance for barren overburden and the parts in which the grade would be unpayable; allowance was also made for lower metal prices than those now prevailing. Most of this tonnage will be worked by quarrying.

Since the drilling was completed in 1950, over 60,000 tons of ore have been quarried and milled and the tonnage of lead and zinc concentrates produced show fair approximation to the estimates of grade made from the bore-hole sampling, in spite of the fact that the quarry faces have not yet reached any of the bore-holes.

The enriched zone known as the Index Bed itself is being explored by adits driven into the hillside along the strike of the strata and connected by raises made to the dip. The grade of the ore near the Bed is considerably higher than the average for the whole deposit, and could be worked profitably by underground mining in the event of the metal prices falling so low as to render the average grade of the whole deposit uneconomic. The country rock is dolomitized limestone and produced very good drill cores even in the highly mineralized sections. The average core recovery was 84 per cent of the lengths drilled. All the pieces of core which carried visible galena or blende were split and half sent for assay. In all, 13 new holes were drilled, totalling about 1,300 ft. in length, the whole programme being completed with one drill in less than two months.

At Abbeytown conditions for drilling were easier than at Llanrwst. The holes were all vertical and less than 150 ft. deep, the rock was homogeneous and softer and cored better, and the ore body thicker and more extensive. It presented a target that was hard to miss so long as the hole was inside the mineralized area. The deposit was known to be large and of low grade before the drilling was started and the programme just described was planned to prove the grade, the probable tonnage, and the suitability for quarrying.

DRILLING AT MATLOCK

The third district in which the diamond drill has recently been used in the search for lead-zinc deposits in Britain is at Matlock in Derbyshire. In an area of about two sq. miles more than 100 different veins have been identified. The majority of these veins occur in the Upper or First Limestone, but some have been worked in the Second and possibly the Third also, and a few have been worked in more than one of these strata. The workings in any one stratum are shallow, rarely exceeding 120 ft. in depth, but their continuity is remarkable and it is clear that with the mineralization on the scale indicated by the frequency of the veins, the total tonnage of ore won in the area must have been large.

After some failures it was decided to drill to prove the concealed extension of a master vein in the First Limestone.

In order to gain an entry into this potential mining field it was decided to select as a leader the vein which showed the best signs of continuity in its exposed and worked-out parts and whose line of strike leads directly into the trough. The vein known as the "Great Rake" was selected for the attempt because it possessed all the necessary qualities for a master vein and has been worked in the First and Second Limestones. Also, it strikes along the axis of a pronounced anticlinal fold, and there has been fault movement between the walls amounting to 15-20 ft.

Exploration of an old adit from the east bank of the Derwent gave clear indications that the vein persists eastward under the shales, but it was decided to get further proof of its continuity by drilling.

The surface contours are such as to prevent the drilling of diagonal drill-holes from the surface to intersect the vein for any great distance from the east end of the old workings, because the dip of the strata and the rise of the surface brings the ore-bearing zone beyond the practicable range of the drills. However, it was hoped to be able to prove by drilling another 900 ft. along the line of the vein. The drilling for the Great Rake at Matlock is the only case described in this paper in which the target was the extension of a known vein into an area concealed by overlying non-productive strata.

The main difficulties expected at Matlock were the limited height of the target presented by the "bearing zone" and the uncertainty whether it would be possible to recover sufficient vein core to identify it. Regarding the smallness of the target, it had to be remembered that the thickness of the First Limestone was about 150 ft., but the width or height of the ore "ribbon" is reduced by possibly 50 ft. owing to the fault displacement.

Altogether three inclined holes and one vertical were drilled, with a total footage of 2,164 ft. Four deflections were also drilled with a total footage of 288 ft., thus bringing the total footage to 2,452 ft. All three inclined holes and one deflection made successful intersections of the vein and sufficient core was recovered in each case to permit a sample of reasonable size being assayed. There had been galena losses by abrasion, but in spite of this all the samples gave payable results. In the other three deflections the bit jammed on the wedge and the vein could not be penetrated.

It is satisfactory to have proved the existence of payable ore in the extension to the Great Rake, because very little is known regarding the grade of ore which was won from these master veins in the past. In the present operations the Great Rake is regarded mainly as a valuable leader to the cross veins and it is encouraging to believe that it will pay to work it alone.

The drilling operations at Matlock are now to be followed up by underground development. For the present it can be said that the important fact has been proved that the lead veins of Derbyshire can be located from the surface by diamond drilling, provided sufficient study is first given to the selection of suitable targets; and there are many targets in Derbyshire awaiting examination.

DIFFICULTIES IN DRILLING OPERATIONS

The main problem encountered when drilling inclined holes for prospecting purposes is the recovery of vein cores and sludge. It often happens that the drill penetrates a vein unexpectedly and the anxiety of the drillers to avoid too frequent pulling of the long string of rods results in the drill passing through the vein without its being noticed until after it has been penetrated. A change in the colour of the drilling return water is a common method of observ-

ing a change of ground at the bottom of the hole, but this is impossible when the water fails to come to the surface, as so often happens when drilling in limestone strata, owing to the frequent large crevices.

In the absence of returned drilling water, the presence of a vein will often be indicated by the change in drilling speed, due to a change in the resistance to the cutting bit.

The results of the drilling on the three properties go far to prove that bore-holes can reveal the existence of unworked reserves of lead-zinc ores in Britain. By this means the main element of risk of failure to find sufficient ore can be greatly reduced and underground exploration and development undertaken with confidence of ultimate success.

Western European Coal Developments

Some of the long-term schemes for the development of coal mining in Western Europe are taking shape, writes our coal correspondent. Developments in Great Britain were outlined in the Plan for Coal issued by the National Coal Board in 1950. At that time the Board estimated that £38,000,000 would have to be invested annually from 1951 to 1955 to give the plan a proper start but delays occasioned by shortages of materials and lack of men reduced capital expenditure in 1951 to £26,500,000. Recent improvements in production and manpower have, however, enabled the Board to go ahead more rapidly with this work and it is probable that the capital outlay in 1952 will exceed £40,000,000.

GREAT BRITAIN

Current investments in Great Britain are being devoted mainly to the opening of new mines, to the development of new machines and techniques at the coal-face, and to the reorganization of transport underground and of coal preparation on the surface. It is probable that the Continental practice of including power generation in the flow sheets for coal preparation will in future be adopted here to enable the heat of combustion of low-grade fuels and slurries to be converted into electrical energy in the coalfields for use at the mines and for transmission over the new grid systems to towns and industrial centres. Minor developments are also taking place in connection with the drainage of methane and its utilization and the gasification of inferior or unworkable coal seams underground.

A typical example of one of the larger projects is provided by the new colliery which is being opened at Bevercotes, in Nottinghamshire, where shaft-sinking operations were inaugurated on June 24 last by the Minister of Fuel and Power. The shafts are being sunk at the centre of an area of 12 sq. miles, under which there are proved reserves of over 100,000,000 tons of coal at depths varying from 2,400 to 3,000 ft. The colliery is designed for an output of 5,000 tons a day and about 1,250,000 tons a year. It will thus have a useful life of 100 years, or longer, if known seams at greater depth are eventually added to the reserves. Three seams will be worked successively, in descending order, and the coal in each of them is suitable for general industrial and economic purposes. Two shafts of 24 ft. finished diameter are being sunk to a depth of 3,000 ft., they will pass through about 800 ft. of heavily watered Perma-Triassic strata. The freezing method will probably have to be used for this distance but it is expected that ordinary sinking methods may be used below this level.

The long-wall method of working will be used and, with power loading, trunk conveyors, locomotives, and skip winding it is expected that an overall output of 3 tons per manshift will be achieved, in which case 1,700 workers will be employed at the colliery when it is fully developed. A coal preparation plant is to be installed on the surface capable of dealing with the whole of the output. The cost of sinking and equipping the colliery will be about £5,500,000 and production is due to begin in 1960.

In September Lord Leathers, the Minister for the Co-ordination of Fuel and Transport, attended the opening of the new Calverton colliery in the same area. This colliery was designed for a daily output of 5,000 tons by the former owners, the B.A. Colliery Co. Ltd., and one of the shafts was sunk by them before the war. The National Coal Board completed the work largely in accordance with the original plans. This is the first new deep mine to come into production since the coal industry was nationalized.

RUHR WORKING OBSOLESCENT

The urgent need for capital investment in the West German coal industry arises not only because of the destruction caused by the war, but also because few shafts have been sunk in these coalfields during the last 30 years. Only 3 per cent of the present output comes from mines opened during the last 25 years, whilst 45 per cent comes from mines which are over 75 years old and there are many mines still in operation which are over 100 years old. The output of hard coal at present is about 400,000 tons a day, of which 25,000 tons is produced by coal cutting machines, 20,000 tons by coal ploughs and 60,000 tons by pneumatic picks, and mechanical loaders. The remainder is obtained mainly by pneumatic picks and hand loading. There is thus much scope for increased mechanization in existing collieries but this in itself will not be enough even to maintain the present output, and if plans are made by O.E.E.C. for the West German coal industry are to be carried out it is imperative that new mines should be opened without delay. A total investment of 3,770,000,000 D marks will be needed for this purpose and about half this sum will have to be raised from external sources. The increase in the total output of coal in Western Germany since the war has been brought about by increased manpower rather than by technical improvements for the number of mine workers in this area is now much greater than before the war. At the end of July this year they numbered 468,000 compared with 253,608 in 1938 and 310,000 in 1951.

FRANCE NEEDS COKE

A special commission was recently appointed in France to draw up a second plan for the development of the country's basic industries to follow the Monet Plan which covered the period from 1946 to 1951. At the present time France is spending heavily on imported coal and coke. It is stated that the importation of coal and coke from the U.S.A. is costing the Treasury as much per million tons as would suffice, if invested in French collieries, to increase their productive capacity by 1,000,000 tons per annum. There is no urgent need for importing coal for heat and power since over 55 per cent of all the electricity used in France is now being obtained from hydro-electric plants, but the shortage of coke is seriously hindering industrial developments in many directions. For this reason, it is proposed to give high priority in the new plan to the needs of the coal and coke industries. Under the Monet Plan the total investments amounted to £2,300,000,000 of which approximately 10 per cent went into the coal mining industry.

MACHINERY AND EQUIPMENT

A Straight Line Overhead Loader

Designed for use with the Fordson Major tractor, the patented Merton Overhead Loader is presented by Mackay Industrial Equipment Ltd., sole distributors for Great Britain and Northern Ireland, as possessing many advantages over the standard wheeled forward loading shovels. The equipment is manufactured by the Merton Engineering Co., Ltd., and its principal advantage over standard types is said to be that its 14 cu. ft. bucket loads in a straight line from stockpile or face direct to truck or dumper, thus eliminating any turning or changing of direction. It is of interest that some hundreds of Merton Overhead Loaders have been manufactured in Australia since 1939, and that the Merton Engineering Co., Ltd., have chiefly supplied this product to the export market. Plans have now been made to supplement production.

An important feature is that the drive to the winch operating the bucket is taken from the front of the engine. It therefore is completely independent of the main clutch. Fifteen seconds is taken to complete the cycle of operation from loading the bucket, tipping, and returning to the loading position, and meanwhile the machine is able to travel between the stockpile and the vehicle in a straight line, with the sole operational

The Merton Overhead Loader

effort required being a change of gear from reverse to forward. By this method there is no undue wear on the front axle or the steering mechanism, and counterweights are unnecessary through the design of the superstructure and the even displacement of load.

The operating principle of the loader allows the bucket to be "crowded," and thus a maximum load is obtained, while at the same time the application of the principle permits the machine to operate in narrow cuts and confined spaces where the only limitation is the width of the machine itself. Under wet conditions, the straight line operational factor avoids a quagmire being churned, and apart from any temporary roadway that can be laid to support the Loader, Rotaped half-tracks can be fitted for particularly bad conditions. Overhead protection is given to the operator and his fatigue is reduced to a minimum.

The Merton Overhead Loader was on display on the stand of Mackay Industrial Equipment Ltd. at the recent Public Works' Exhibition at Olympia. The general dimensions of the unit are an overall length of 17 ft. 4 in. with the bucket on the floor, and overall height of 11 ft. 3 in. and a width of 6 ft. 8 in. With bucket discharging the clearance is 8 ft. 6 in., the rear track 5 ft. 8 in. and the front track 5 ft., the wheel base is 7 ft. and reach with bucket discharging is 2 ft. 9 in. The weight, including fuel, oil and water, is 4 tons 7 cwt. Lubrication is pressure fed and a pneumatic type of governor is fitted to Diesel engines, while the centrifugal type is fitted to petrol and vaporizing oil engines. The b.h.p. at a governed speed of 1,600 r.p.m. is 40.5 for the Diesel, 39.5 for the petrol, and 38.5 for the vaporizing oil models. Forward speeds range from 1.7 m.p.h. in 1st gear to 10.8 m.p.h. in 6th, while the maximum of the two reverse gears allows for 4.13 m.p.h.

The bucket is formed from ¼ in. and ⅜ in. plate reinforced and fitted with manganese steel lip plates, and teeth can be supplied as an extra. Phosphor bronze bushed rollers are fitted and these rotate on large diameter pins held in integral tapered bushes. The overhead tracks are of special folded construction, pressed from 5/16 in. and ¼ in. plate, with track ties and supports formed from rolled steel channels. The return of the bucket from the tipping to the loading position is initially assisted by a pair of springs.

The cab and overhead protective guarding is formed with steel angle and plate with large and toughened safety glass windows which permit all round vision, and interconnection of the winch and brake levers permit all movements of the bucket from the loading to the discharging and return to be controlled by slight pressure from one handle.

The Blaydon Scraper

The Blaydon Scraper was the subject of an impressive demonstration, as one of the units displayed at the Northern Productivity Exhibition held in Newcastle-on-Tyne from October 30 to November 6. The Victoria Seam at Blaydon's, St. Mary Drift, is 12-14 in. thick and contains some of the world's finest coking coal, but it is too thin to work economically by normal methods. Briefly, the scraper unit developed at Blaydon resembles the scraper hoist plant used so successfully elsewhere, except that the scale is considerably increased and the boxes are fitted with cutting blades at each end in the face side. The blades are detachable and are tipped with tungsten carbide steel. The depth of cut is about 1 in. The number of boxes required is governed by the length of face and optimum length of haul.

It was decided to experiment on a 60-yard retreating single unit panel using no timber whatever on the face. There are no men in the face while the scraper is working. The whole system is operated by one winch attendant and two wheelmen, one in the mother gate and one in the tail gate. The scraper boxes are skeleton in construction comprising sides, top plates and braces, and a hinged flap which lifts over anything in the track when the direction of movement is away from the loading point. The boxes slice off coal when running in either direction and convey the coal which they have cut themselves together with that deposited by the previous box. There are two sizes of box in each installation, the leading box being larger than the others.

The output per man shift is now more than double that obtained by other methods, and in the light of experience gained it has been decided that the experiment shall continue.

An Enterprising Publication

A well produced book published by Williams & Womersley Ltd. marks the fiftieth anniversary of the foundation of the firm. The partners commenced operations in 1902 at the Rosa Works, a "modest undertaking" which is now part of the premises of the Hepburn Conveyor Co., Ltd. The book tells the story of the firm's growth and the development of its export trade, and excellent photographic illustrations show examples of its wide range of products. These photographs show, among other pieces, a double reduction chain drive for motor to line shaft, cast iron belt pulleys, a rope pulley and shaft for main drive from turbine, strip rolling machines for heavy and light sections, a roller leveller for flat strip with coilholder, large size Oldham type couplings, and rolling mill equipment.

Since the early days Williams & Womersley Ltd. have extended their scope, and products from the plant to-day include shafts, bearings, pulleys, V rope drives, and friction clutches or gearings. Of specific interest to the mining industry is the manufacture by the firm of conveyor, haulage, winding, and rolling mill equipment, as well as units for use in the gold and copper mining industries.

METALS, MINERALS AND ALLOYS

Section 56 of the Finance Act 1952 gives some relief to companies producing asbestos, crude petroleum and certain metals if the Treasury certifies that increased output is essential in the national interest. The Treasury has now issued a list of fourteen metals which can be covered by the Treasury certificate, but producers will be little wiser how they stand because regulations have yet to be framed covering the manner of computing the normal rate of profit and the additional output. Until these regulations are issued—some time next year—the real mechanics of the provisions will not be seen. The fourteen metals qualifying are: chrome, cobalt, columbium, copper, gold, iron, lead, manganese, molybdenum, tantalum, tin, tungsten, vanadium and zinc.

Although world production of many metals has been expanded beyond expectation, the need for economy is still urgent. The Government sponsored Metals Economy Advisory Committee in its first report published this week expresses this view, stating that the forecasts of supply and demand do not allow sufficient margin to build up stocks or to allow for an unforeseen falling off in production.

COPPER.—The Northern Rhodesia copperbelt is to be extended towards the north-west by the formation of a new mining company under the aegis of Rhokana. The new area, to be called the Bancroft Mines, has proved ore reserves of 80,000,000 tons and it is proposed to equip the mine to produce 4,000 s.tons of copper per month. In addition, it will be recalled that Mufulira has in prospect the establishment of a new mine north-west of Roan. This is Baluba Mines, planned to produce 24,000 tons of copper per year out of the 37,000,000 tons of ore reserves believed to be available. These new propositions are distinct from the mine which is still being investigated and from the Kansanshi Chibuluma mine.

The copperbelt conciliation talks were quickly found to be unfruitful and the Union wavered for a while between a resumption of the strike and the submission of the case to arbitration. In the end, the moderates won. At least a week is expected to pass before the composition of the tribunal is announced. During this time and while the tribunal is hearing the evidence and considering the verdict, the Union will have a job on its hands keeping in check the more hot-headed natives who are wanting strike action. The present pace is very uneasy.

Mr. J. Russell, chairman of Revere Copper and Brass, considers that the copper price situation is unhealthy and advocates the decontrol of prices as the only solution. He does not attempt to forecast the level at which prices would settle in such an event, beyond saying that it would rise above the 24.50c. per lb. at present paid to the domestic producers, but it would be "considerably below" 36.50c. per lb., being paid for imported copper.

Well-informed sources in Chile believe that the Government is likely to supersede the present system of multiple exchange rates by one single fixed rate as part of a drastic programme to balance next year's budget. It has been suggested that the new rate will be on the basis of a hundred pesos to the dollar and 280 to the pound.

The Board of Trade is considering the modification of the present restrictions on the use of copper and copper alloys.

LEAD.—Activity in lead dealings in New York has declined somewhat this week after the recent burst of buying for December account. However, sellers' books are believed to be in a good position and certainly there is, at present, no indication of the New York price easing from the 14¼c. level.

TIN.—The Bolivian Ambassador in Washington is still trying to show the sweet reasonableness of the new Bolivian Government. Cancellation of the concessions does not, he said recently, mean confiscation and the owners would be paid what was due to them. The ambassador does not appear to have commented on his President's curious ideas concerning what is due to the nationalized companies nor on the discrepancy between the figure claimed by the companies and the amount which the ambassador himself accepted as being probably accurate as compensation payment. To claim, as he does, that Bolivia is seeking to create an atmosphere to attract private capital is utterly ludicrous.

Mining interests in Malaya have combined to attack the recent statement by the chief inspector of mines that tin production from the federation would be substantially lower than in 1951. Representatives of the industry are talking in terms of a reduction of 1,000 tons, or 2 per cent of Malaya's output. Malayan output in October is reported at 4,801 tons making a total for 10 months of 47,099 tons as compared with a total of 47,363 in the corresponding period of 1951.

The seven hundred tin mining concerns in Malaya are owned and operated predominantly by the British and Chinese. Now we learn of the establishment of the first exclusively Malayan-owned tin company—Setapak Sharipak Lumbong Ltd.—which is to dredge tin deposits in an area of about 60 acres at Setapak, 8 miles from Kuala Lumpur. The company is also reported to have prospecting rights over 57 acres at Batu Caves and eventually proposes to operate over a total area of about 500 acres.

It is understood that the R.F.C. has now either acquired or contracted for enough tin concentrates to keep the Texas smelter in operation for the next 12 months. The projected rate of output is not known, however.

The nine-month cumulative U.K. tin statistics published in this column last week (page 549) throw an interesting sidelight on the purely statistical confusion which can arise from the supposedly secret government market operations. After allowing for the difference in opening and closing stocks the nine-month figures for this year showed an apparent excess of consumption and exports over production and imports of around 8,000 tons. The explanation of this seeming miracle is to be found in the figures for Malayan exports to the U.K. which for the same period amounted to 13,581 tons against imports reported by Trade and Navigation returns of 2,672. Government stockpile purchases are, we believe, not included in the Trade and Navigation returns and it must therefore be concluded that the discrepancy between these two figures is largely accounted for by Government stockpile purchases to replace the 10,000 tons shipped to the U.S. earlier this year under the tin-and-aluminium-for-steel agreement, and which do appear in the Trade and Navigation export figures.

ZINC.—It has been officially confirmed that trading in zinc on the London Metal Exchange will be resumed on January 2 next. Details of the announcement are reported elsewhere by our Metal Exchange Correspondent. As zinc stocks in this country at the end of September stood at 133,699 tons, a figure not far short of a year's consumption, the Ministry is faced with an even bigger stock disposal problem than in the case of lead, and it seems reasonable to assume that in due course a portion of these stocks will be sold back to the producers. Unless the U.S. zinc market picks up in the meanwhile, it may, however, be doubted whether the zinc producers will show quite the same enthusiasm for re-purchasing from the Government as was evidenced in the case of lead.

Meanwhile, the psychological effect of the existence of these stocks can scarcely be regarded as an encouraging market factor and the zinc market in New York has been pretty quiet this week, although the price remains unchanged at a price 12¼c. per lb. equivalent to about £100 a ton, compared with the present Ministry of Materials price of £110, and the Continental free market price of £85-£88. On the credit side, however, may be set indications that the improved steel supply position, both in the U.S. and elsewhere, may soon generate a strong unsatisfied zinc demand from the galvanizers.

ALUMINIUM.—Despite the new 10,000 tonnes aluminium loan from this country to the U.S. announced at the end of last month, Americans are still faced with an aluminium shortage by reason of the curtailment of available power supplies due to drought both in the Pacific North-West and the Tennessee Valley. It is estimated that at the end of this year the U.S. aluminium industry will have an order backlog of 75,000 s.tons. Faced with this situation the industry is urging the withdrawal of aluminium from the stockpile and the postponement well into next year of further stockpile purchases. The fact that the industry is also urging that increased supplies should be obtained from Canada serves to underline the United

States' essential dependence on this source of supply whenever their power resources are placed under any exceptional strain. To-day, it is drought, another time it could be war, or just normal industrial expansion.

QUICKSILVER.—D.P.A. has raised its sights for quicksilver production by 1954 to an annual U.S. requirement of 80,000 flasks as against its earlier target of 60,500 flasks. U.S. consumption in 1950 was 50,639 flasks. This increase is expected to be obtained without any programme of financial assistance other than domestic exploration loans by the Defence Minerals Exploration Administration.

Tightness in supplies of spot quicksilver in New York has pushed the price up to $200-205 from $193-195. Reports from America suggest that the U.S. Government has taken delivery of 10,000 flasks, mainly from Spain, and may be negotiating for at least a further 20,000 flasks.

TUNGSTEN.—The market is very quiet and owing to lack of demand there is plenty of material available. In Portugal prices show a slightly firmer tendency, but Spain remains out of the market owing to the high prices being asked.

The London Metal Market

(From Our Metal Exchange Correspondent)

Since Thursday of last week the tin market has displayed a rather better tone and prices have been higher, particularly for cash, following a further decline in the warehouse stocks at the end of the week, although the volume of business has not been impressive. Continental demand has been quiet, but in the East it has been quite good, the quotation advancing sharply on the 18th by about £9 per ton although this advance has not been fully held.

The Eastern price on Thursday morning was equivalent to £962 15s. per ton c.i.f. Europe. On Thursday afternoon the market was steady.

Lead during the week has been somewhat less active up to the time of writing, and prices have fluctuated from day to day between £98 in the afternoon of the 13th instant and £94 10s. during the morning of Wednesday the 19th. Rumours have been circulating again about the United States buying large quantities of lead for their stockpile from Britain, but no confirmation can be obtained of these having any foundation in fact. On Thursday afternoon the market was steadier.

The Ministry of Materials has announced that it is now able to confirm the date of the resumption of private trading in zinc, and the Committee of the London Metal Exchange has informed the Ministry that dealings on the Exchange will begin on January 2, as January 1 is a closed day for the market. The Ministry intimates that its policy will be to release from its stocks no more than a relatively small tonnage during the early months after the resumption of private trading. The metal to be disposed of will be made available through the London Metal Exchange and other normal trade channels and will be sufficient to meet consumers' requirements. The Directorate of Non-Ferrous Metals will terminate its present sales arrangements on December 31, but consumers will be able, if they wish, to make purchases in December of zinc for delivery in January on the existing terms. Import and export licence arrangements will be announced later.

There is very little new to report as regards copper, and it is understood that negotiations for a settlement of the wage dispute between the Rhodesian mining companies and the African mine-workers have so far ended in a deadlock.

There is very little change to report in zinc, and the Continental price is about £84-£86 per ton.

CLOSING PRICES AND WEEK'S TURNOVER

	November 13		*November 20*	
	Buyers	*Sellers*	*Buyers*	*Sellers*
Tin				
Cash	£951 10s.	£952 10s.	£968 10s.	£969
Three months	£936	£937	£948	£949
Settlement	£952		£969	
Week's turnover	435 tons		490 tons	
Lead				
Current month	£97 15s.	£98	£93 5s.	£93 10s.
Three months	£97 15s.	£98	£93 5s.	£93 10s.
Week's turnover	6,825 tons		6,000 tons	

Iron and Steel

Steel supplies are improving but they are still insufficient to permit of any further increase in the allocations for the current quarter. The best that can be hoped for is that producers will be able to fulfil their commitments before the end of the year and avoid the heavy carry-over of uncompleted contracts which has become the usual experience at the end of each licensing period. Direct exports of steel products are still on a modest scale. Competition in overseas markets is becoming keener, and restrictions upon foreign trade everywhere abound. But the home demand for iron and steel manufactures of all descriptions is of such proportions that it cannot readily be overtaken, despite the encouraging expansion of output.

The raising of the target figure for the steel industry in 1953 is confidently anticipated. This confidence is based upon the freer flow of raw materials. More plentiful supplies of coal, coke and ore are available and even scrap deliveries have improved. During the month of September the consumption of steel-making scrap was raised to 184,000 tons per week compared with 151,000 tons in the previous month. In addition, steel makers were able to increase their stocks of scrap by 41,000 tons in September, but their total reserves amount to no more than a fortnight's average consumption and it is emphasized that there must be no relaxation of the effort to mobilize maximium tonnages of scrap for steel production.

NOVEMBER 20 PRICES

COPPER

Electrolytic	£285 0 0 d/d

LEAD AND TIN

(See our London Metal Exchange report for Thursday's prices)

ZINC

G.O.B. spelter, foreign, duty paid	£110 0 0 d/d
G.O.B. spelter, domestic	£110 0 0 d/d
Electrolytic and refined zinc	£114 0 0 d/d
Special high grade	£116 0 0 d/d

ANTIMONY

English (99%) delivered, 10 cwt. and over	£225 per ton
Crude (70%)	£210 per ton
Ore (60% basis)	20s. — 22s. nom. per unit, c.i.f.

NICKEL

99.5% (home trade)	£454 per ton

OTHER METALS

Aluminium, £166 per ton.	Osmiridium, £40 oz. nom.
Bismuth (5 cwt. lots) 17s. 6d. lb. (min. 2 cwt. ex-warehouse).	Osmium, £65/£70 oz. nom.
Cadmium (Empire), 14s. 4d. lb.	Palladium, £7 15s./£8 10s. oz.
Chromium, 6s. 3d./6s. 7d. lb.	Platinum, £27/£33 5s.
Cobalt, 20s. lb.	Rhodium, £42 10s. oz.
Gold, 248s. f.oz.	Ruthenium, £25 oz.
Iridium, £60 oz. nom.	Quicksilver, £70 10s./£71 ex-warehouse
Magnesium, 2s. 10½d. lb.	Selenium, 25s. nom. per lb.
Manganese Metal (96% - 98%) 2s. 2d./2s. 3d. per lb. d/d	Silver 72⅞d. f.oz. spot and f'd.
	Tellurium, 18s./19s. lb.

ORES, ALLOYS, ETC.

Bismuth	50% 8s. 6d. lb. c.i.f. 40% 7s. 6d. lb. c.i.f.
Chrome Ore—	
Rhodesian Metallurgical (lumpy)	£13 2s. per ton c.i.f.
" (concentrates)	£13 2s. per ton c.i.f.
" Refractory	£12 14s. per ton c.i.f.
Baluchistan Metallurgical	£14 15s. 6d. per ton c.i.f.
Magnesite, ground calcined	£26 - £27 d/d
Magnesite, Raw	£10 - £11 d/d
Molybdenite (85% basis)	105s. 10d. per unit c.i.f.
Wolfram (65%)	410s. c.i.f. U.K. buying
" "	432s. 6d. d/d U.K. selling
Scheelite	400s. c.i.f. U.K. buying
"	422s. 6d. d/d U.K. selling
Tungsten Metal Powder (for steel manufacture)	30s. 8d. nom. per lb. (home)
Ferro-tungsten	27s. 6d. nom. per lb. (home)
Carbide, 4-cwt. lots	£32 3s. 9d. d/d per ton
Ferro-manganese, home	£49 0s. 8d. per ton
Manganese Ore U.K. (48% - 50%)	6s. per unit
Brass Wire	2s. 8⅛d. per lb. basis
Brass Tubes, solid drawn	2s. 2⅛d. per lb. basis

THE MINING MARKETS

(By Our Stock Exchange Correspondent)

During the latter part of the week the volume of turnover in the markets generally improved. Gilt-edged investors were relieved that the £300,000,000 compensation under the land development scheme is now no longer going to be paid. This would have added a further burden to an already strained economy.

Kaffirs which started flat on the South African political situation swung round and finished firm. Most of the interest centred round Far West Rand shares. The price list below does not give a very clear indication of the change which in many cases simply recouped earlier losses. London buying orders in Johannesburg found the market short of stock and sharp rises occurred. In some quarters a more hopeful view is taken of the situation now that the South African High Court has rejected the Government scheme for altering the constitution, but it is difficult clearly to assess the situation until after the general election next spring.

The position of gold continues doubtful. Several mines in Canada have had to close down and the price of the metal on the free markets has been falling away. World wide restrictions and controls make it impossible to arrive at a true value against the U.S. dollar.

New Consolidated Goldfields produced excellent accounts. In spite of the difficult conditions encountered during the year, profits show an expansion from £2,269,459 to £3,328,723. Goldfields ordinary shares rose sharply in consequence.

The O.F.S. reacted in sympathy with Kaffirs and showed good gains. Harmony and Union Free State Coal and Gold were particularly sought in anticipation of the annual meetings which take place as we go to press.

Further high values at depth reported by Cam & Motor caused a sharp rise in the shares. The position of this company has radically changed from some years ago when the life of the property was believed to be fairly short. The company is increasing capital expenditure in developing the newly acquired Pickstone mine. When this comes fully into production it should extend even further the scope of the property. For the first time for many months there was enquiry for the mines operating on the Kolar goldfields.

Diamonds and platinums fell. The report from the Consolidated African Selection Trust indicated that profits had declined by some £500,000. The chairman stated that some relaxation of the high level of diamond prices was apparent and that the company had been suffering considerable losses from the output of private miners in West Africa. This had sharply increased in the last few years and it was suspected that much of it came from the company's own property. French buying caused De Beers to harden against the general trend.

Coppers, which had earlier been easier on the strike situation, steadied up on the decision to send the case to arbitration.

Lead/zinc shares moved upwards on the firmer base metal prices. The Continental free markets in zinc are now reported to be quoting around £87 per ton as against £81 per ton a week ago. Mount Isa mines are recommending a final dividend of 10 per cent making 20 per cent for the year. This compares with 25 per cent for the previous year when the interim dividend was paid on a smaller capital. The profit is up by over £A.2,000,000. At their present price of 34s. the shares yield over 9 per cent. The market is looking forward to improved results from copper production next year.

Miscellaneous base metals showed a sharp revival. Manganese and asbestos shares went ahead. Wankie Colliery, however, were further depressed following the announcement that the Board are studying plans for extending production. The projects would involve considerable capital expenditure.

FINANCE	Price Nov. 19	+ or − on week
African & European	2⅜	+⅛
Anglo American Corpn.	5⅜	−⅛
Anglo-French	17/6	−6d
Anglo Transvaal Consol.	25/-	
Central Mining (£1 shrs.)	32/6	
Consolidated Goldfields	42/-xd	+1/4½
Consol. Mines Selection	23/9	−7½d
Rand Consols	2/4½	+3d
General Mining	3⅜	+−⅛
H.E. Prop.	30/-xd	
Henderson's Transvaal	8/6	−3d
Johnnies	45/-	
Rand Mines	3⅜	−¼
Rand Selection	35/-	−1/3
Strathmore Consol.	25/-	−1/3
Union Corp. (2/6 units)	30/-	−4½d
Vereeniging Estates	3¼	
Writs	28/9	
West Wits	40/-	+7½d
RAND GOLD		
Blyvoors	41/6	+1½d
Brakpan	15/6	
City Deep	25/7½	−1/3
Consol. Main Reef	30/-	
Crown	40/-	+7½d
Daggas	3⅜	+⅛
Doornfontein	23/6	+9d
Durban Deep	2⅜	+⅛
E. Daggas	16/6	−4½d
E. Geduld ... (4/- units)	39/4½	
E. Rand Props	3⅛	−¼
Geduld	5⅛	−¼
Govt. Areas	12/6	+6d
Grootvlei	26/3	−7½d
Libanon	10/7½	−10½d
Luipaards Vlei	21/3	+3d
Marievale	18/9	−6d
Modderfontein East	21/10½	−7½d
New Kleinfontein	25/-	
New Pioneer	12/3	−3d
Randfontein	23/9	+1/-
Robinson Deep	10/3	−3d
Rose Deep	20/7½	
Simmer & Jack	5/1½	−1½d
S.A. Lands	32/6	−1/3
Springs	6/6	
Stilfontein	21/3xr	−9d
Sub Nigel	40/-	
Van Dyk	10/3	
Venterspost	15/-	−1/-
Vlakfontein	16/3	
Vogelstruisbult	29/6	+6d
West Driefontein	5⅜	+⅛
W. Rand Consolidated	50/7½	+1/10½
Western Reefs	41/10½	−7½d
O.F.S.		
Freddies	6/7½	−1½d
Freddies N.	8/3	+4½d
Freddies S.	7/1½	+3d
F.S. Geduld	2⅜	+½
Geoffries	15/3	+9d
Harmony	19/10½	+7½d
Loraine	6/3	+6d
Lydenburg Estates	8/6	
Merriespruit	3/6	−3d
Middle Wits	14/3	+9d
Ofsits	38/1½	+1/3
President Brand	19/3	
President Steyn	17/-	+6d
St. Helena	15/3	+6d
U.F.S. C. & G.	7/3	+4½d
Virginia Ord.	11/10½	+1½d
Welkom	20/9	+6d
Western Holdings	3⅜	+⅛
WEST AFRICAN GOLD		
Amalgamated Banket	1/6	+1½d
Ariston	5/10½	+1½d
Ashanti	17/-	+3d
Bibiani	5/9	
Bremang	2/1½	
G.C. Main Reef	3/1½	−1½d
G.C. Selection Trust	5/10½	+1½d
Konongo	2/4½	+3d
Lyndhurst Deep	1/1½	+1½d
Marlu	1/3	
Taquah & Abosso	2/7½	+1½d
AUSTRALIAN GOLD		
Boulder Perseverance	2/-	
Gold Mines of Kalgoorlie	10/9	+3d
Great Boulder Prop.	5/6	
Lake View and Star	16/-xd	−9d
Mount Morgan	18/7½	+3d
North Kalgurli	12/-	+4½d
Sons of Gwalia	7/3	+3d
South Kalgurli	7/7½	+4½d
Western Mining	10/6	+1½d
MISCELLANEOUS GOLD		
Cam and Motor	45/-	+1/10½
Champion Reef	6/6	+7½d
Falcon Mines	7/6	
Globe & Phoenix	25/-	
G.F. Rhodesian	5/1½	−4½d
London & Rhodesian	4/9	
Motapa	1/9	
Mysore	3/6	+4½d
Nundydroog	6/-	+1½d
Ooregum	3/6	+1½d
Oroville	11/3	−3d
MISCELLANEOUS GOLD (contd.)		
St. John d'El Rey	22/6	+1/-
Zams	33/6	+1/-
DIAMONDS & PLATINUM		
Anglo American Inv.	3⅜	−⅛
Casts	26/9	−3d
Cons. Diam. of S.W.A.	¼	−⅛
De Beers Defd. Bearer	64/3	+1/6
De Beers Pfd. Bearer	13⅜	
Pots Platinum	8/3	−1½d
Watervaal	14/-	−4½d
COPPER		
Chartered	53/6	−1/3
Esperanza	3/7½	
Indian Copper	4/9	
Messina	3⅛xd	−⅛
Nchanga	6⅛	−⅛
Rhod. Anglo-American	52/3	−3d
Rhod. Katanga	13/4½	+4½d
Rhodesian Selection	16/-	
Rhokana	18⅛	−⅛
Rio Tinto	23	
Roan Antelope	13/4½	−1½d
Selection Trust	37/6	−1/-
Tanks	58/6	+6d
Tharsis Sulphur Br.	41/3	−1/3
TIN (Eastern)		
Ayer Hitam	24/6	+3d
Bangrin	7/9	+1½d
Gopeng	10/6	+6d
Hongkong	7/6	+1½d
Ipoh	21/3	
Kamunting	10/6	+3d
Kepong Dredging	7/-	−6d
Kinta Tin Mines	12/3	
Malayan Dredging	25/-	+1/-
Pahang	15/-	
Pengkalen	10/3	
Petaling	13/9xd	−3d
Rambutan	12/6	
Siamese Tin	22/9	+1/-
Southern Kinta	14/6	
S. Malayan	25/9	
S. Tronoh	12/6	
Sungei Kinta	18/1½	
Tekka Taiping	7/6	
Tronoh	22/9	
TIN (Nigerian and Miscellaneous)		
Amalgamated Tin	9/9	+4½d
Beralt Tin	33/-	+4/3
Bisichi	4/4½xd	
British Tin Inv.	14/10½	+1½d
Ex-Lands Nigeria	4/6xd	−1½d
TIN (Nigerian and Miscellaneous) contd.		
Geevor Tin	13/9	
Gold & Base Metal	3/9	+3d
Jantar Nigeria	11/7½	+4½d
Jos Tin Area	10/3	
Kaduna Prospectors	3/9	
Kaduna Syndicate	3/6	−3d
London Tin	8/3	+1½d
United Tin	2/7½	
SILVER, LEAD, ZINC		
Broken Hill South	41/3	+7½d
Burma Corporation	1/7½	+1½d
Consol. Zinc	25/3	−1½d
Lake George	15/-	+9d
Mount Isa	34/-	
New Broken Hill	22/6	−9d
North Broken Hill	50/-	−7½d
Rhodesian Broken Hill	15/-	+3d
San Francisco Mines	25/-	
Uruwira	3/10½	−1½d
MISCELLANEOUS BASE METALS & COALS		
Amal. Collieries of S.A.	45/9	+9d
Associated Manganese	40/3	+2/9
Cape Asbestos	17/4½	+1½d
C.P. Manganese	49/9	+7½d
Consol. Murchison	27/-	+2/6
Mashaba	2⅜	
Natal Navigation	2⅜	
Rhod. Monteleo	11/3	
Turner & Newall	95/-	+2/6
Wankie	14/10xd	−4½d
Witbank Colliery	52/6	
CANADIAN MINES		
Dome	$37½	
Hollinger	$27⅛	−$⅛
Hudson Bay Mining	$103	−$3
International Nickel	$78½	+$⅛
Mining Corpn. of Canada	£5xd	−£⅛
Noranda	$136	−$10
Quemont	£6½	−£⅛
Yukon	4/3	−1½d
OIL		
Anglo-Iranian	5½xd	+⅛
Apex	38/9	−7½d
Attock	22/6	
Burmah	41/10½	−1½d
Canadian Eagle	33/3	−1/4½
Mexican Eagle	22/6	−1½d
Shell (bearer)	78/9	
Trinidad Leasehold	27/1½	−7½d
T.P.D.	23/9	−1/-
Ultramar	28/7½	−7½d

COMPANY NEWS AND VIEWS

Gold Fields Makes Good Profits in Bad Times

The full report and accounts of Consolidated Gold Fields of South Africa showed that the impressive earnings expansion of its wholly owned subsidiary New Consolidated Goldfields for the year to June 30 last arose chiefly from profit on realization of investments, commission and sundry revenue, the total income from these three sources advancing steeply from £393,370 to no less than £1,072,505. This figure must still be labelled remarkable for share dealing conditions on the Kaffir market during the period covered by the accounts were anything but ideal.

Moreover, gross income from dividends and interest on investments increased from £1,146,690 to £1,154,624, which again is particularly impressive, as the report states that dividends declared by the Rand gold industry as a whole decreased by 12½ per cent compared with the previous year.

The balance sheet draws attention to another item in need of amplification, namely, the increase in total shareholdings by £2,234,852 to £12,921,284. As much as £1,282,159 has been used to swell the company's portfolio of unquoted investments which, at the financial year end, stood at £2,403,636.

Rhokana's New Bancroft Mine has 80,000,000 Tons of Ore

In his statement, accompanying the annual report of Rhokana Corporation published a year ago, Sir Ernest Oppenheimer, the chairman, said that as far as could be seen the company's resources were sufficient to take care of all capital expenditure approved in principle at that time. He qualified this statement, however, with warnings that delays and cost increases might alter the picture, and that further retention of funds to finance stocks and stores at higher price levels and additional capital expenditure would almost certainly be found to be necessary. These warnings, he now declares in his statement accompanying the accounts for the year ended June 30 last, have been justified, and in order to finance a part of the additional commitments which have now arisen, a further appropriation of £1,800,000 has been made to general reserve from the year's profit.

Confirmation of the wisdom of this decision comes from the balance sheet where it is shown that fixed assets have risen by over £1,500,000 to £16,790,763 (£15,278,831) and that stores have expanded by nearly the same amount—£3,560,721 against £2,089,067. Finally, while the cash holding is up from £3,050,275 to £6,146,074, net current assets have contracted by £1,512,361 to £3,953,101. Moreover, contracts for capital expenditure not provided for in the accounts amount to approximately £1,100,000 compared with £660,000 in the preceding year.

Apart from the foregoing, the story of the year's operations were given in the preliminary statement which appeared in our issue of October 24 last.

But what is of particular interest in the chairman's statement is the reference to the decision to form a new company, to be known as the Bancroft Mine, to develop the Konkola and Kirila Bomwe Special Grant Areas at present owned by Rhokana. The combined area has ore reserves which earlier and current diamond drilling programmes have already proved to total over 80,000,000 tons. It is proposed to develop and equip this mine on the basis of a production of 4,000 s.tons of copper a month. In this connection the chairman pointed out that the new mine would benefit from the special taxation treatment now afforded to new mines in Northern Rhodesia, in pursuance of the Government's policy of encouraging new mining development.

Sir Ernest also mentioned that small tonnages of uranium bearing ore have been proved at the south end of the Mindola Section of the mine; further exploration to delimit this occurrence is in progress.

The annual meeting will be held in Nkana, Northern Rhodesia, on December 10.

Rhoanglo's Group Assets Expand to £62,285,000

Rhodesian Anglo American, which holds over 52 per cent of Rhokana Corporation's ordinary and "A" ordinary capital, has reported a consolidated operating profit for the year ended June 30 last, of £20,245,964 compared with £14,196,630 for the preceding year. This figure, however, includes an exceptional profit of £1,840,000 (nil) and also takes into account provision for depreciation amounting to £713,317 against £597,703. Income from investments and from interest brought the gross revenue for the year to the figure of £21,574,419, against £15,060,464.

After providing for all expenses, including £8,059,675 (£4,072,940) for taxation, consolidated net profit was £13,270,736 (£10,746,199), of which £3,954,753 (£3,310,320), was retained as net profit in the accounts of the company, the remainder being attributable to its subsidiaries and to its outside interests. The dividend distribution totalled 62½ per cent (55 per cent), but in connection with the 1950-1951 payment, it should be borne in mind that half of this distribution was treated as free of U.K. tax.

Group assets expanded during the year from £52,159,303 to £62,285,342, fixed assets rising from £25,722,093 to £28,742,831 and current assets from £21,103,842 to £25,515,450. Current liabilities were shown on the balance sheet as aggregating £19,898,211 against £14,908,943. The company's capital commitments were given as totalling approximately £4,566,000 compared with £2,230,000 in the preceding year.

The annual meeting will be held at Nkana, Northern Rhodesia, on December 10. Sir Ernest Oppenheimer is chairman.

Improved Labour Position at Lake View

From the report and accounts now published of Lake View and Star for the year ended June 30 last it would appear that there has been an all round improvement in working conditions. The labour position improved very considerably during the year, the increase in the total force rising by 134 to 1,021 and, be it noted, the main increase has been on the underground side. Moreover, absenteeism has shown a welcome decline in recent months. This is a particularly important development as the labour supply position for the whole of the Australian gold mining industry in recent years has been a problem of considerable magnitude. Whether or not it indicates a change for the better in the general labour supply position remains to be seen. The supply position for stores and equipment also improved and, during the year, a change-over to the use of light drilling equipment and tungsten-carbide tipped steel in place of the heavier machines and conventional steel used previously resulted in a much increased break underground with the same number of machines in operation.

To these favourable features can be attributed the good operating results clearly shown in the following table:

Year to		*Per Ton Milled*			*Ore Reserves*	
June 30	*Milled (tons)*	*Grade (dwt.)*	*Yield (oz.)*	*Cost* s. d.*	*(Tons) (000)*	*Grade (dwt.)*
1952	652,247	4.7	140,450	40 11	3,724	4.8
1951	625,900	4.4	131,706	35 2	4,100	4.7

*Excluding tailings retreatment.

Unfortunately, the sharp rise in working costs by 7s. 3d. per ton has nullified these otherwise excellent results. This rise in working costs was due to a substantial increase in the basic wage, to higher prices for most consumable stores, and to the impact of the general revision of railway freight rates which operated from the beginning of May, 1951. A repercussion of the rise in production costs can be seen in the decrease in the ore reserves by some 342,000 tons. This tonnage was previously included but is now no longer payable under present conditions.

Year to June 30	*Bullion Revenue*	*Mining Costs*	*Tax*	*Net Profit*	*Dividend*	*Carry Forward*
	£	£	£	£	%	£
1952	1,922,776	1,308,987	308,000	180,824	62½	62,321
1951	1,751,888	1,070,119	342,000	227,260	62½	62,423

The salient features of the profit and loss account call for little comment. The slight amelioration of the taxation burden being insufficient to offset the appreciable increase in mining costs. However, the shareholders have not suffered and the

forward balance at the financial year end remained virtually unchanged.

The annual meeting will be held in London on December 10. Sir Joseph Ball is chairman.

Mount Isa's Big Profit Expansion

Profits of Mount Isa, the important Australian lead-zinc producer for the year ended June 30 last improved by no less than £A.1,430,169, an impressive performance but not wholly unexpected taking into consideration that the financial period covered by the accounts encompassed the time during which the prices for both lead and zinc were at their highest levels since the outbreak of war in Korea. Tax attracted was heavier, and provision for depreciation was also larger, but even so net profit showed an advance over the previous year by £A.818,916 and it might well have been expected that a higher distribution than the 25 per cent paid in 1951 would be forthcoming. While this has not been the case it must be borne in mind that both the interim payment of 10 per cent and the final of 10 per cent were paid on an issued capital increased by the acquisition of the Mining Trust in 1951, whereas in the preceding year only the final payment of 15 per cent was paid on the larger capital.

Year to June 30	*Working Profit*	*Tax*	*Depreciation*	*Net Profit*	*Dividend*	*To Reserve*
	£A	£A	£A	£A	%	£A
1952	5,115,040	2,135,282	800,000	2,179,758	20	1,000,000*
1951	3,684,871	1,745,665	578,364	1,360,842	25	Nil

*Appropriated from year's profits for capital expenditure, mine development and community services.

The appropriation of £A.1,000,000 from current profits indicates the size of the company's expansion programme which includes the erection of a new copper-smelting plant. This new copper concentrating mill and smelter will be in operation early next year with a production of 18,000 tons of copper and the general effect and impression created by current operations at Mount Isa are commented on by our Australian correspondent in his most recent despatch which appears in this issue on page 569.

The annual meeting will be held in Brisbane on December 8.

Rising Costs Reduce Wankie's Profit

Tonnage of coal mined and raised by Wankie Colliery during the year to August 31 last amounted to 2,717,914 tons compared with 2,473,113 tons in the previous year. Sales of coal and coke also showed an improvement over the previous year's figures, the respective totals being 2,372,946 tons and 113,375 tons. Both these figures reflect an increase of 11½ per cent.

Revenue from the sale of the company's products totalled £1,898,814 against £1,477,825 and although rents and sundry revenue declined from £69,570 to £50,586, the gross income for the year of £1,949,400 compared very favourably with the previous year's earnings of £1,547,395. While the increased revenue from coal sales reflected the improvement in the price per ton of coal by 2s. 3d. operative since February last, the rise in costs has more than accounted for this increase and after meeting all commitments, profit before tax was reduced to £245,198 compared with £283,396.

No provision was made in the accounts for Rhodesian taxation for the year as it is estimated that the wear and tear allowance on fixed assets, and the depletion allowance will be in excess of the assessable profits. However, the profit and loss account does record that after certain tax adjustments there was a credit of £27,919 which gives a net profit figure for the year of £273,117. To this sum was added £128,836 brought in, and after deducting the amount distributed of £86,871 to meet the dividend payment of 5 per cent (same), the available balance was £315,082 (£223,836). As the company is now no longer subject to U.K. taxation the amount outstanding against taxation equalization reserve was transferred to contingencies reserve, to which was added £95,000, from the current year's profit, making the total of that reserve account £250,000. The carry forward at the financial year-end was £220,082 compared with £128,836 brought in.

The annual meeting will be held in Salisbury on December 12. Mr. Robert Foot is chairman.

"Casts" Distribute Less

The combined profit, before tax, of Consolidated African Selection Trust and its subsidiaries for the year to June 30 last at £2,192,797 showed a contraction of £504,625. That a short fall in earnings should have occurred during a year in which the diamond industry as a whole has enjoyed unprecedented prosperity comes somewhat of a surprise. How altered the position might have been if the problem of illicit mining and theft, on the company's concessions on the Gold Coast and Sierra Leone, had been under control, is not known, yet the illegal removal of substantial quantities of diamonds from both areas has been going on for some time and constitutes a serious threat to the company's operations. Indeed, it still does, although there are positive signs that the energetic steps initiated by the company in both the Gold Coast and Sierra Leone is bringing an improvement in the situation.

Year to June 30	*Working Profit*	*Tax*	*Net*	*Dividend*	*To Reserve*	*Carry Forward*
	£	£	£	%	£	£
1952	2,192,797	1,453,125	739,672	80	152,267	158,484
1951	2,697,422	1,716,786	980,636	100	484,093	118,032

The explanation given by the chairman in his statement accompanying the accounts is that the profit decline was due to a sharp fall both in the quantity and value in production by Sierra Leone Selection Trust, the company's most important subsidiary. This resulted, Mr. C. W. Boise states, as compared with the previous year, in a reduction in net revenues after deducting operating expenses, of about £670,000, that is—from £2,100,000 to £1,430,000. Taxation required some £940,000 so that the Sierra Leone contribution to distributable profits was in the neighbourhood of £490,000.

Added to these difficulties was the fact that the tax man was hardly less demanding and the net profit figure was approximately £140,000 lower than in the previous year. This meant a lower dividend payment and a considerable decline in the aggregate allocation to reserves, although the carry forward was left some £40,000 stronger at the financial year-end.

Referring to the outlook for the current year, the chairman stated that while there have been signs of relaxation in the high level of demand recently existing, world sales for 1952 will show a high figure and the whole of the company's available production will be absorbed under its selling contract. He thus concludes that the outlook for the current year's trading is satisfactory.

The annual meeting will be held in London on December 11.

Consolidated Tin Mines of Burma Pay 5 Per Cent

No improvement has taken place in the conditions prevailing in the Tavoy district of Burma in which the mines operated by Consolidated Tin Mines of Burma are situated. This commentary on conditions in Burma is contained in the Report and Accounts of Consolidated Tin Mines of Burma for the year ended March 31 last. The directors also add that the company's operations, because of these conditions, are seriously curtailed. Thus with only a small proportion of the concentrates illicitly extracted from its mines reaching the company's head office in Tavoy, operations for the past year were, understandably, chiefly confined to the purchase and treatment of ores from other sources.

Nevertheless, the tribute ore from the company's mines amounted to 88 tons, a result which was no doubt commendable under the circumstances but which does not compare with the preceding year's output from this source of 174 tons. On the other hand, the company more than offset this decline by purchasing from other sources 335 tons as against 177 tons the preceding year.

The mixed concentrates dealt with revealed that the average grade of the company's tribute ore was 33 per cent wolfram and 35 per cent tin whereas the average assay of the ore purchased was approximately 52 per cent wolfram and 6 per cent tin.

The profit and loss of the parent company showed that net profit, after providing for all expenses and £1,964 (£1,835) for taxation, was £11,415 against £19,698 previously. The for-

ward balance at the financial year end was £21,559 compared with £18,493 brought in.

The salient features of the consolidated profit and loss account are given in the table below:

Year to Mar. 31	Working Revenue	Expenses	Tax	Net Profit	Dividend	Carry Forward
	£	£	£	£	%	£
1951	16,032	2,850	1,378	11,805	5	21,987
1950	41,666	2,850	16,540	22,276	7½	18,577

The annual meeting will be held on December 4. Mr. W. J. C. Richards is chairman.

Mufulira and Roan Continue to Forge Ahead

Excellent results are reported by Mufulira Copper and Roan Antelope Copper for the three months to September 30 last. This was, of course, anticipated as this period covered the first full quarter in which the Copperbelt companies had the benefit of the steep advance in the price of copper and it does not reflect the impact on production of the recent three weeks' cessation of operations arising out of the labour strike. Production at Mufulira for the quarter amounted to 22,924 tons (26,174 tons), which figure includes 5,750 tons of anode copper, which is subject, the report states, to further treatment in the electrolytic refinery. It is, therefore, regarded as material in process and is not included in the copper stocks, and the cost of producing it is excluded from operating expenditure.

Production of blister copper at Roan Antelope during the September quarter was 22,338 against 21,691 in the preceding quarter, an increase of 647 tons.

The following tables show the results for both companies for the past four quarters.

Mufulira	*Dec. Qtr.* 1951	*March Qtr.* 1952	*June Qtr.* 1952	*Sept. Qtr.* 1952
Sales ..... l.tons	21,528	9,499	28,424	21,961
	(£000)	(£000)	(£000)	(£000)
Revenue	4,379	1,982	5,931	5,309
Costs.....	1,782	1,147	2,302	1,765
Difference in value of copper stocks	Cr.47	Cr.198	Dr.175	Dr.227
Surplus.....	2,644	1,033	3,454	3,317
London expenses ...	25	16	2	Cr13
Replacements *	325	250	250	250
Profit before taxation†	2,294	767	3,202	3,080

*Subject to revision when year's accounts considered.
†Estimated.

Roan Antelope	*Dec. Qtr.* 1951	*March Qtr.* 1952	*June Qtr.* 1952	*Sept. Qtr.* 1952
Sales ..... l.tons	21,249	18,185	21,691	22,338
	(£000)	(£000)	(£000)	(£000)
Revenue	4,323	3,795	4,526	5,400
Costs.....	1,865	1,672	2,002	2,236
Difference in value of copper stocks	Cr.47	Cr.36	Cr.24	Cr.178
Surplus.....	2,505	2,159	2,548	3,342
London expenses ...	36	37	Cr.4	6
Replacements *	400	250	250	250
Profit before taxation†	2,069	1,872	2,302	3,086

*Subject to revision when year's accounts considered.
†Estimated.

While the operating surplus achieved by Roan Antelope in the September quarter constituted a record, Mufulira's earnings, though not quite so impressive, maintained the company's high earnings rate. Indeed, the profit figure achieved appears quite impressive when the reduction in the output of blister copper by 9,000 tons is taken into consideration.

Sir Lindsay Parkinson—a Confusing Picture

Shareholders of Sir Lindsay Parkinson & Co., the large civil engineering contractors, will be glad to get hold of the full report and accounts for the year ended December 31, last. Certainly, the preliminary statement now issued covering this period does not tell them much, particularly if the bare results for 1951 are compared with those of the preceding year. The net profit of the parent company, after meeting all expenses, including taxation, for 1951 at £37,879 is about one-tenth of the earnings achieved in 1950 when the comparable figure was £379,452. This is an abnormally large decline but the position is complicated by the fact that in 1950 the net profit figure included a tax credit of £411,414, whereas in 1951 the tax credit taken into account was only £33,926. The carry forward at the end of 1951 for the parent company was £110,988 against £98,571 brought in.

Group figures given in the preliminary statement make a comparison of the results for 1951 with those of 1950 just as difficult. In 1950, group net profit, after all charges including taxation but after crediting tax repayment of £410,000, was £406,790. This has now been transformed into a loss of £43,730 for 1951 ostensibly due to the fact that the tax credit taken into account in arriving at the 1951 profit figure was only £19,030.

The preliminary statement also announces that the net aggregate loss of the subsidiary companies is accounted for by pre-devaluation contracts. In this connection it is added that steps are being taken which should rectify this position and that no figures are available for the Indian subsidiaries, one of which has been sold. These brief statements will, presumably, be enlarged upon when the full report and accounts are published.

With the foregoing in mind it might have been expected that the dividend income of shareholders would be very small indeed, or even negligible. But this is not so and the dividend distributions are being maintained at 8 per cent on the Participating Preferred and at 10½ per cent on the ordinary shares. On the face of it this may seem to be an unwise decision. But it should be borne in mind that of the 1950 credits, totalling in all to £435,915, the sum of £150,000 was transfered to a dividend equalization reserve while another £200,000 was allocated to contingencies reserve. The company created the dividend equalization reserve with the idea of maintaining the dividend distribution at their current rate—within reasonable bounds—and in any case, the present payments only require £25,463 net.

Company Shorts

Mount Lyell Raises Dividend.—A preliminary statement issued by Mount Lyell Mining and Railway Co. giving the financial results for the year ended September 30 last showed that the net profit amounted to £238,502 compared with £195,829. This figure was arrived at after bringing into account £106,078 retained from copper sales of the previous year and after writing £2,316 (£15,655) off prospecting and development, providing £66,794 (£47,566) for depreciation, £110,125 (£70,000) for taxation and appropriating £100,000 for new plant expenditure. The dividend distribution has been raised to 7½ per cent against 6½ per cent and declared payable in Melbourne on December 22.

Paringa Sells its Assets to G.M.K. (Aust.).—Paringa Mining & Exploration have announced that the company's gold mining leases, properties, plant and equipment at Kalgoorlie, have been sold to Gold Mines of Kalgoorlie (Aust.) for £A.85,000 which sale completes the disposal of its assets at Kalgoorlie.

Operations on the Wheal Fortune Extended Lead Mine at Northampton, W. Australia, are progressing satisfactorily the announcement states and negotiations for taking over other mining properties are proceeding. In this connection Gold Mines of Kalgoorlie (Aust.) have announced that these leases are adjoining its own leases and can be worked advantageously as part of its operations and thus feel that this acquisition will prove of material benefit.

Great Western Consolidated N.L. Begins Crushing.—Great Western Consolidated N.L. have announced that milling has begun and that the plant is operating satisfactorily. Feed to mill consists of ore from opening up of mine quarry and from development and stope preparation work underground.

Anglo-Burma Tin's Net Earnings Much Reduced.—In a preliminary statement giving financial results for the year ended May 31 last, Anglo-Burma Tin Company announced a gross revenue of £92,731 compared with £157,978 in the previous year. Expenses, including expenditure in Burma and London, depreciation, debenture interest and taxation, amounted to £89,673 (£153,443) leaving a net profit of £3,058 against £14,535 previously. The carry forward at the company's financial year end was £8,030 against £4,972 brought in.

Falconbridge Nickel Receives $5,000,000 Credit From U.S. Import-Export Bank.—A credit of up to $5,000,000 to Falconbridge Nickel Mines, of Toronto, Canada, has been authorized

by the U.S. Import-Export Bank. This arrangement follows the deal completed in February last under which Falconbridge Nickel contracted to supply the U.S. by 1961 with not less than 50,000,000 lb. of nickel for defence purposes. Additionally, the company also contracted to supply 1,500,000 lb. of cobalt and took options to deliver additional nickel and copper supplies.

To meet these commitments Falconbridge has embarked on an expanded mining programme, about half the cost of which it will provide itself, the remainder being made up from the loan from the U.S. Import-Export Bank together with funds made available from D.M.P.A.

The loan from the Bank will bear interest at the rate of 5 per cent per annum and will be paid back in 10 semi-annual instalments beginning in 1955.

Nor does it appear that Falconbridge's mining programme is to be confined to the parent company alone, for it has now been announced that the company's nickel works at Kristiansand is to increase its capacity by about 1,500 tons per annum to 15,000 tons. In this connection, it is reported that as the copper content of the ores processed is increased the plant's copper refining capacity will be extended correspondingly. In fact, extensions to the plant are expected to be undertaken shortly and will take about 18 months to complete.

West Witwatersrand Maintains Dividend on Larger Capital.—The profit and loss account of West Witwatersrand Areas for the year to June 30 last showed that investment income amounted to £541,897 (£534,639) and this together with sundry revenue of £18,033 (£19,727) gave a total income for the year of £559,930 compared with £554,366 in the preceding year. Drilling expenses and general charges totalled £83,064 (£92,148), taxation took £21,550 (£20,181) and after maintaining the dividend distribution at 1s. 3d. per 2s. 6d. share, on an issued capital increased during the year from £800,800 to £840,840, (which required £420,420 (£400,400), the balance remaining was £34,896 against £41,637 previously. The carry forward at the financial year end was £112,662 compared with £77,766 brought in.

The annual meeting will be held in Johannesburg on Nov. 26. Mr. S. R. Fleischer is chairman.

Meru Tin Profits Reduced.—A preliminary statement covering the year ended June 30 last of Meru Tin shows that the net profit, after providing for all expenses including £7,878 (£11,922) for taxation, was £4,368 against £9,509 in the previous year. The dividend distribution was maintained at 12½ per cent absorbing £4,988 and after allocating £245 (£918) for depreciation, the carry forward at the financial year end was £6,448 against £7,313 brought in.

Fire at Champion Reef.—An outbreak of fire on Champion Reef Mine on November 6 last has been announced. Glen's Ore Shoot area, south zone has been completely sealed and all mining operations stopped for the present. Output, it is stated, will be affected. There were no casualties.

Rantau Tin's Proposed Bonus Issue.—Rantau Tin Dredging, which is incorporated in Malaya has announced that in order to bring its authorized share capital into line with the capital it actually employs, it has made application to the Controller of Foreign Exchange to increase its capital by the issue of 1,450,000 ordinary shares of $1 each. Subject to this permission being obtained, the company intends to capitalize an amount of $1,450,000 from the company's undisturbed profits and to issue shares as a capital bonus to shareholders in the ratio of one new for every one held.

The company has two modern electrically operated dredges in operation and for the first four months of the current year output totalled 203 tons compared with 121 tons in the corresponding period of the previous year.

Australia and New Zealand Bank Maiden Report.—Australia and New Zealand Bank—in which are merged The Bank of Australasia and the Union Bank of Australia—have announced net profits for its first full financial year ended September 30 last, of £A.701,608 against £A.721,429. This figure was arrived at after providing for all expenses including taxation and making transfers to reserves and provisions for contingencies out of which accounts, provision has been made for any diminution in value of assets. The total dividend distribution was maintained at 10 per cent absorbing £A.560,043 (£A.572,770) and the carry forward at the financial year-end amounted to £A.1,262,687 against £A.121,122 brought in.

Not too much should be made of the comparisons given, as the 1951 figures appertain to a slightly longer period than a year; they comprise the profits of the Australia and New Zealand Bank from its incorporation on March 28, 1951, and of the Bank of Australasia for the periods from their previous accounting dates, namely October 11, 1950, and August 31, 1950 respectively to September 30, 1951.

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RHOKANA CORPORATION

OPERATING PROFIT £1,000,000 HIGHER

The Thirtieth Annual General Meeting of Rhokana Corporation Ltd., will be held on December 10 at Nkana, Northern Rhodesia.

The following is an extract from the statement by the Chairman, **Sir Ernest Oppenheimer,** dated October 22, 1952, circulated with the report and accounts for the year ended June 30, 1952:—

The results for the year to June 30 last will, I am sure, be regarded as very satisfactory. The operating profit, at just over £10,000,000 shows an increase of £1,000,000, but it should be remembered that this increase was, as explained in the directors' report, to some extent caused by exceptional sales during the year. The investment income, £500,000 higher at over £2,000,000, again includes a substantially increased dividend on our large holding in Nchanga Consolidated Copper Mines Ltd., to which we look for even more material contributions to your company's prosperity in the future.

In my statement last year I said that, as far as could be seen, the company's resources were sufficient to take care of all capital expenditure approved in principle at that time. I qualified this statement with warnings that delays and cost increases might alter the picture, and that further retentions of funds to finance stocks and stores at higher price levels and additional capital expenditure would almost certainly be found to be necessary. These warnings have been justified and in order therefore to finance a part of the additional commitments which have now arisen, a further appropriation of £1,800,000 has been made to general reserve from the year's profit.

BANCROFT MINE

It has been decided to form a company to develop the Konkola and Kirila Bomwe Special Grant areas at present owned by this company. The combined area will be known as the Bancroft Mine after Dr. J. A. Bancroft, for many years consulting geologist of the Anglo American Corporation of South Africa Ltd., who has played an invaluable part in the company's prospecting activities. The mine has ore reserves which earlier and current diamond drilling programmes have already proved to total over 80,000,000 tons. It is proposed to develop and equip the mine on the basis of a production of 4,000 s.tons of copper per month.

The price of copper has advanced to a new high level in recent months, and this level has been maintained, with minor variations, until now.

The new electrolytic cobalt plant, when commissioned early this year, ran into a number of the operational difficulties which always beset a new process, and it was not until August that production of cobalt metal began.

Small tonnages of uranium-bearing ore have been proved at the south end of the Mindola section of the mine. Further exploration to delimit this occurrence is in progress.

COAL AND ELECTRIC POWER

The coal supply position during the year to June last continued to be unsatisfactory; for much of the time our smelter and power plant were restricted in output, and the smelter and other sections of the plant had to shut down on several occasions. Since the year-end there has been some improvement, July and August showing the best monthly deliveries ever received, though these were still far short of the ever-increasing requirements of the Copperbelt. It is to be hoped that this improvement will be maintained and permit continuous full operations, with a reduction and eventual abandonment of the uneconomic practice of wood-burning.

The subject of electric power supply is closely associated with the coal problem. The Copperbelt Power Interconnection Scheme, as you will have seen from the directors' report, is now in commission, and your company's plant is linked with those of the other three copper companies through high-voltage transmission lines. The benefits of a pooling of power resources are already being experienced and further developments in hand will make the benefits even more apparent. The developments include, as a first stage, the installation of further high-efficiency steam-generating plant by your associated company, Nchanga Consolidated Copper Mines Ltd., and plant improvements by the other companies, which should take care of increasing loads up to 1956. To cover requirements after 1956, the Northern Rhodesia Power Corporation, on behalf of the mining companies, has virtually finalized arrangements with Union Miniere du Haut Katanga for the supply over a period of up to 20 years of substantial quantities of electricity from a new hydro-electric station to be constructed in the Belgian Congo. In addition, there is a possibility that hydro-electric power may also be available from the Kafue Gorge Scheme in Northern Rhodesia. A report on this territorial scheme by consultants appointed by the Northern Rhodesia Government is expected in the near future.

The annual report and accounts may be obtained from the head office, Kitwe, or from the transfer offices at 44, Main Street, Johannesburg, and 11, Old Jewry, London, E.C.2.

CONSOLIDATED AFRICAN SELECTION TRUST

The Twenty-Eighth Annual General Meeting of Consolidated African Selection Trust Ltd. will be held on December 11 at Selection Trust Building, Mason's Avenue, London, E.C.4

The following are extracts from the statement by the Chairman, **Mr. C. W. Boise,** which has been circulated with the report and accounts for the year ended June 30, 1952:—

The net surplus after providing £1,450,000 (66 per cent) for taxation was £740,000, a decrease of about £240,000 compared with the previous year. Allocations for Prospecting and Development required £65,000, the African Welfare and Retirement Gratuity Fund £47,000, and Taxation Contingencies £40,000.

An interim dividend of 1s. has already been paid and your Directors now recommend a final dividend of 3s. per unit of Stock, subject to income tax at 9s. 6d. in the £. These dividends require a net sum of £636,953 as compared with £796,191 (4s. plus bonus of 1s.) for the previous year, when we were able to distribute a special bonus of 1s. from funds accumulated as a consequence of the observance of the voluntary limitation of dividends requested by an earlier Chancellor of the Exchequer.

GOLD COAST

This territory provided approximately £900,000 after charging the year's production expenses. This amount was first reduced by £200,000 in respect of Export and Minerals Duties and Concession Royalties. Taxation took a further £520,000 and the profit was therefore reduced to £180,000.

Exports of diamond by African producers increased throughout the year under review and now considerably exceed those by the organized mining companies. Parallel with this development, illicit diamond mining continues as a serious threat to our operations. There is unfortunately no doubt, however, that substantial quantities of diamonds continue to be removed illegally from our concession areas. These cover nearly 70 square miles of thickly wooded country, and as Africans have been permitted to take out digger licences on the borders of our main operating zone, the difficulty of preventing illicit mining and theft is obvious.

SIERRA LEONE

There was a sharp fall both in the quantity and value of our Sierra Leone production over the period under review, and this resulted, as compared with the previous year, in a reduction in our net revenues after deducting operating expenses of about £670,000, i.e. from £2,100,000 to £1,430,000.

In this territory also illicit mining and theft have become a problem and the serious deterioration in security undoubtedly contributed to a considerable extent to the reduction referred to in the previous paragraph. Energetic steps have been taken to deal with these developments.

The prices at which your company's production of industrial and gem material is sold to Industrial Distributors (1946) Ltd. and the Diamond Corporation Ltd. have substantially improved during the year and this has compensated to some extent for the fall in our total output.

We have recently accepted an invitation to purchase a shareholding in The Diamond Trading Co. Ltd. and The Diamond Purchasing and Trading Co. Ltd., which are jointly concerned with the distribution to the market of cuttable rough diamonds. This is similar in some respects to our earlier investments in Industrial Distributors, and may be expected to provide a useful contribution to your company's revenues.

Our record for the last year has clearly shown the ever increasing burden of taxation, and of the labour and operational costs which we have to meet. I consider nevertheless that the outlook for the current year's trading is again satisfactory.

DIVIDENDS

Bangrin Tin Dredging 7½% *i* (Dec. 9)
Commercial Bank of Scotland "A" 7½%; "B" 5% (Jan. 1)
Cementation Company 15% (Dec. 10)
Ex-Lands Nigeria 20% *i* (December 4)
Ipoh Tin Dredging 1s. 9d. (Dec. 23)
International Nickel Co. of Canada Common 110c. q (Dec. 20)
Lake View Investment Trust 5% *i* (Dec. 1)
Lake View & Star 37½% (Dec. 11)
Mt. Lyell Mining and Railway 7½% (Dec. 22)
Placer Development $1 (Dec. 11)
Rand Selection Corporation 2s. (Jan. 2)
Rawang Concessions 25% *i* (Dec. 3)
Siamese Tin Syndicate 40% *i* (Dec. 2)
South African Townships 6d. (Jan. 2)
Tehidy Minerals 5% (Nov. 27)
Wankie Colliery 5% (Dec. 19)
Zinc Investments 3% (Dec. 19)

i interim

BLYVOORUITZICHT GOLD MINING

The Fifteenth Annual General Meeting of the Blyvooruitzicht Gold Mining Co. Ltd., was held on November 18 in Johannesburg.

Mr. W. M. Frames, the Chairman, who presided, said:—

Although there was a small improvement in the average number of employees in service, both European and Native, during the year under review which contributed largely to the increase of 205,000 tons in the tonnage milled, compared with the figure for the previous year, the labour supply was far short of requirements and in consequence the mine operated at a level considerably below its capacity. The yield per ton milled was 1.509 dwt. lower, but the increased output, coupled with a decrease of 10d. per ton milled in working costs, resulted in an increase of £168,670 in the working profit, which reached the record total of £7,695,319. The yield at 12.622 dwt. conformed more closely to the average value of the available ore reserve. During the first four months of the current financial year the number of non-Europeans in service has fallen severely in comparison with the figure for last year and in consequence the total tonnage milled is lower, working costs are higher, and the working revenue less than for the corresponding period last year.

I dealt at some length last year with the trend of mining operations and development results in order that shareholders might appreciate the position regarding grade at the mine and the probable operating results until the area below the seventh level is sufficiently opened up to contribute a significant tonnage of ore to the mill. Since then progress in the sub-incline shafts has been satisfactory and high values have been exposed in the development so far completed on the eighth level in the vicinity of No. A1 sub-incline shaft, which augurs well for future operations below the seventh level in the eastern portion of the mine. In the central section the limited amount of development accomplished exposed highly satisfactory values. To the west of No. 2 shaft the values exposed averaged 296 in.-dwt., which, although slightly better than the figure for the preceding year, continued to be considerably lower than the average for the whole mine.

In preparation for the future sinking of two sub-vertical shafts near the southern boundary of the property to deal with the reef at depth, twin haulages are being driven southwards from the sixth level at Nos. 1 and 2 shafts. The lengths of these haulages will be between 7,000 and 8,000 ft. The sub-vertical shafts will be stopped some distance above the reef horizon, which should obviate the necessity of leaving shaft pillars.

The quantity of water pumped to the surface increased substantially during the year. The mine is equipped, however, with a pumping capacity more than sufficient to meet the present position. In view of the larger quantity of water being handled capacities are being further increased by the installation of additional pumping units, which are either at the mine and in course of erection or are on order for delivery in the near future.

EXPANSION OF URANIUM ACTIVITIES

During the year a revised agreement was entered into with the Atomic Energy Board of South Africa in terms of which the operations of the company for the extraction of uranium are to be expanded. In addition to treating current residues the company will also treat the accumulated residues from its slimes dam and a larger plant than was originally contemplated is therefore being erected. The capital cost of the uranium plant is now estimated at £3,358,100. The whole of this amount will be provided by means of loans, which will be repayable solely out of the proceeds of uranium sales during the contracted 10-year production period. Shareholders will therefore not be called upon to provide any of the finance required and the company will be relieved of the capital risks incurred in erecting the plant. The erection of the plant is proceeding satisfactorily and it is anticipated that it will be ready for operation early in 1953. In terms of the revised agreement the company will receive a higher price for its product than that agreed upon at the end of 1950. Such price ensures the redemption of the capital cost of the plant plus interest over the contracted 10-year period of production and in addition allows a satisfactory margin of profit to the company. As production will be on a larger scale and in view of the higher price to be received for the product it is anticipated that on the basis of present taxation costs the net profit which will accrue to the company will be greater than was stated in the directors' report for the financial year ended June 30, 1951.

Shareholders will realize that as taxation in regard to uranium production is on the same basis and formula as that applicable to gold mining and as the profits from the two sources are taxed conjointly, the capital expenditure on the uranium plant has brought about an immediate increase in the redemption allowance. This benefit will however diminish as the unamortized balance is reduced and the company will in time be faced with increased taxation and lease consideration as its taxable profit increases.

The report and accounts were adopted.

NEW MODDERFONTEIN GOLD MINING CO. LTD.

At the Fifty-Fifth Annual General Meeting of shareholders in Johannesburg on November 18, **Mr. T. Reekie,** the chairman, in the course of his remarks, said: "The working results for the year provided a profit from mining operations of £26,145, which included £15,573 in respect of additional revenue from sales of gold at enhanced prices and from variations in exchange rates. In addition an amount of £18,619 was received in respect of the special declaration of gold recovered in the course of clean-up operations, making a total working profit of £44,764. Silicosis current expenditure which was not charged to working costs amounted to £22,163, but was more than offset by a credit of £29,415, being the last refund due to the company in respect of a change in the basis of apportioning the outstanding liabilities of the Silicosis Compensation Fund.

RECLAMATION AND CLEAN-UP OPERATIONS

"At our meeting last year I pointed out that if the company continued to operate as a scheduled mine after the end of March, 1952, it would become liable for its proportion of further assessments in respect of the additional liabilities under the 1946 and 1950 Silicosis Legislation, estimated to total £22,000. These further assessments, together with the current levies payable in terms of the Silicosis Act, would have constituted a burden completely disproportionate in relation to the small profits which the company was capable of earning at this state of its existence. In these circumstances and in view of the limited reserves of ore available in the mine, application was made during the year for the removal of the company's name from the list of scheduled mines. As you are aware, this application was granted and the company ceased operations as a scheduled mine shortly before March 31, 1952. On April 3 work on a small scale was re-commenced. A portion of the south reduction plant was modified to mill ore from underground reclamation sources and to treat the tonnage derived from clean-up operations, at a rate totalling approximately 8,000 tons a month. It is not feasible to predict how long it will be possible to continue these operations, in which the major portion of the tonnage milled is being obtained from reclamation work. It is very probable however that they will extend beyond the period necessary for the completion of the surface clean-up and for the salvaging and disposal of all the remaining surplus plant and equipment. During this time close attention will be devoted to the question of realizing to the best advantage the company's remaining freehold and other assets.

OUTSTANDING RECORD ACHIEVED BY THE MINE

"With only reclamation and clean-up operations now being conducted at the property, New Modderfontein, which has assuredly been one of the great mines of the Witwatersrand, has come to the end of its life as a full-scale producer. While one must feel regret at the ending of this long career, there is also a feeling of pride in the outstanding record achieved by the mine."

The chairman then referred at some length to the achievements of the mine since the company's formation in 1895, concluding with the remark that: "Since milling began in 1896 the mine, with a mining area of only 1,360 claims has produced 18,751,492 f.oz. of gold and has received very nearly £100,000,000 in revenue. It has paid out almost £36,000,000 in dividends and reductions in capital, nearly £11,000,000 in taxation and the contribution which it has made to the industrial life of the country can be gathered from the fact that the amount disbursed during this period on working expenses, including stores and materials, European and native wages, and on items of a capital nature, totals over £53,000,000.

FURTHER CASH REPAYMENT

"The further reduction in the scale of operations has necessarily resulted in a decrease in the number of employees. Many of those who have recently left the mine have for a great many years given devoted service to New Modderfontein and to the group, and they are now in well-earned retirement. I take this opportunity of wishing them health and happiness, and would like to pay a special tribute of thanks to all the officials and employees who have rendered such long and loyal service to the company. I am glad to say that it has been possible to find alternative and suitable employment for those of the employees leaving our service who had not yet reached retiring age.

"As an item of special business at to-day's meeting you will be asked to consider a proposal to reduce the company's capital to £560,000 by returning in cash to shareholders a further 6d. per share."

The report and accounts were adopted and the special resolution passed.

RAND LEASES (VOGELSTRUISFONTEIN) GOLD MINING

PRICE BENEFITS REDUCED BY RISING COSTS

The Twentieth Ordinary General Meeting of Rand Leases (Vogelstruisfontein) Gold Mining Co. Ltd. was held on Tuesday last in Johannesburg.

Mr. S. G. Menell, the chairman, who presided, said: I wish to supplement my statement which was issued with the annual report and accounts for the year ended June 30, 1952, with the following remarks. Shareholders will have noticed the steady rise in working costs of the gold mines of the Witwatersrand since September, 1949, and the extent of the rise is such that the benefits derived from the increase in the price of gold (expressed in South African currency) which became effective in September, 1949, have been considerably red iced. The rise in working costs per ton milled is due mainly to increases in (*a*) the price of stores, (*b*) wages, cost of living allowances, and benefits to employees.

The rise in the cost per ton milled has been further aggravated by the shortage of power and underground native labour, both of which have contributed to a drop in output and have caused an additional increase in the cost per ton milled. Owing to the lower tonnage produced as far as your mine is concerned, the cost per ton milled is presently 35.67s., and the recovery per ton milled is 3.298 dwt., equivalent to 41.10s. per ton; the difference between revenue and cost per ton milled being 5.43s. Owing to the higher pay limit caused by the increased costs there has been a decrease of 518,000 tons in the ore reserve tonnage proved during the year. To provide sufficient stope faces to supply the mill with a suitable grade of ore it is essential to maintain a vigorous development schedule, more especially in view of the gradual reduction in the percentage of payability which is being disclosed. As development advances in depth an increase in the rate of development footage accomplished was planned to counteract this lower percentage of payability.

RATE OF MILLING HAMPERED BY LABOUR SHORTAGE

To achieve the necessary development footage and to maintain a reasonable rate of milling there has unfortunately not been a supply of native labour sufficient to provide for requirements of your mine, and we may find ourselves in the position of not being able to maintain the present rate of milling which is already lower than we require. It is therefore not expected that there will be any reduction in working costs per ton milled in the near future and capital expenditure will be as previously stated by me, approximately £200,000 per annum required for the tertiary shaft system below the existing lowest levels of the mine. The funds for this capital expenditure will be provided from profits. Although every effort is continuously being made to increase the output per unit of native labour employed, by adopting better organization methods, both with regard to the training and handling of labour and also by appliances where these are applicable, and economically possible, it has nevertheless not been possible to improve the rate of output per unit of labour fast enough to keep pace with the rate of fall in the supply of labour. Shareholders will realize that taking account of all the facts mentioned it will not be possible to maintain in the future the past rates of payment of dividends, but every effort will be made to keep these as high as is consistent with the financial needs of the company.

The report and accounts were adopted.

W. E. SINCLAIR, M.I.M.M.
Consulting Mining Engineer
South & East Africa & Rhodesia
P.O. Box 1183. JOHANNESBURG

WANTED FOR NIGERIA — Mining Engineer with geological qualification for small tin mine in Nigeria. Age 26/28. Preferably single. Some experience hard rock addition to alluvial. Initial 18 months' tour, usual leave. Reply Box 528, The Mining Journal Ltd., 15, George Street, London, E.C.4.

SITUATIONS VACANT ADVERTISED.—*The Notification of Vacancies Order, 1952, must be complied with where applicable.*

CONSOLIDATED MAIN REEF MINES & ESTATE LTD.

At the Fifty-Fourth Annual General Meeting of shareholders in Johannesburg on November 18, **Mr. P. H. Anderson,** the chairman, said: Conditions continued to be difficult in that the supply of non-European labour followed the general downward trend that has existed over the last few years, further restrictions in the supply of power were imposed and costs continued their upward inflationary trend, although I am pleased to say that there have recently been some signs of a slackening off in the rate at which they are rising.

In my address to you last year I reviewed at some length the position on each of the five reef horizons being worked and showed how the stage had been reached where primary development had practically ceased, and operations were confined, firstly, to probing down the dip by means of winzes in an attempt to locate further zones of payability, and secondly, to internal development in the more promising areas already explored by primary development. As was to be expected there was therefore a further decrease in the development footage accomplished during the year. No results of any significance were obtained in the various winzes but some payable values were located on the 66th Level Main Reef drive connecting 60 W2 and 60 E1 winzes. Further development work is being carried out in this area. Internal development yielded some satisfactory results and the ore reserve positions on the Kimberley, Main Reef Leader and Main Reefs improved; but on the Bird and South Reefs, the two main sources of tonnage, the ore developed was insufficient to replace the ore mined from reserves during the year. A considerable tonnage was lost to reserves due to the rise in the pay limit and there was on balance therefore a further material decrease in the total ore reserve. In view of the decrease in the labour force and the dislocating affects of power cuts, it is gratifying to note that there was a material increase in the tonnage mined during the year. This was offset to some extent by increased sorting and a reduction in the tonnage taken from surface dumps, but nevertheless there was some improvement in the tonnage milled compared with the previous year. This, coupled with a small increase in the value of the ore treated, resulted in an improvement in the quantity of gold produced, and the total revenue was higher in spite of a falling off in the additional revenue received from sales of gold at enhanced prices. Due to the continued rise in working costs, however, the profit was lower and dividends had again to be reduced.

Results to date for the current financial year show a continuation of these tendencies. There has been a further decrease in the supply of non-European labour, with a consequent decrease in the tonnage milled. While there has been some increase in the yield of gold per ton, this has been insufficient to offset the reduced rate of milling, and in addition income from sales of gold at enhanced prices has fallen off. Total revenue has therefore decreased and at the same time there has been a further rise in costs. Profits have suffered accordingly.

The report and accounts were adopted.

HER MAJESTY'S COLONIAL SERVICE
SIERRA LEONE

A vacancy exists for a Mining Geologist (27079/40) in Sierra Leone. The appointment is on probation to the pensionable establishment with salary, according to approved professional experience, in the scale of £570-£1,000 per annum plus £150-£300 per annum expatriation allowance. Cost of living allowance of 12½% of basic salary is payable. Government quarters, including heavy furniture, are provided, when available, at a nominal rent; low income tax; free first-class passages for officer, wife and two children under the age of ten once each way each tour; seven days' leave on full salary for each completed month of resident service; free medical attendance for officer but not for his family. Candidates must possess a B.Sc. degree with Honours in Mining Geology. Duties include: searching for new mineral deposits, mapping on 1 in. and more detailed scales of the petrology and mineralogy of known deposits; geophysical prospecting by resistivity and magnetometry.

Intending candidates should apply in writing to the Director of Recruitment (Colonial Service), Colonial Office, Sanctuary Buildings, Great Smith Street, S.W.1, giving brief details of their age, qualifications and experience. They should mention this paper and quote the reference number (27079/40).

KOLAR GOLD MINING COMPANIES

(MYSORE, CHAMPION REEF, OOREGUM, NUNDYDROOG).

At the Annual General Meetings of the above named Companies, held at Oorgaum on November 10, 1952, at which the results for the nine months ended December 31, 1951, were considered, **Mr. Arthur H. E. Taylor,** in the Chair, said that as a result of the sale of the companies' undertakings and assets in India to the K.G.F. companies, the sterling companies held all the shares of the respective K.G.F. companies except the subscribers' shares, and retained their investments in Government securities. The approximate present market value of these securities are £114,000 Champion Reef, £147,000 Mysore Co., £77,400 Ooregum, and £128,700 Nundydroog. He added that the loans by the last three named companies to their respective subsidiaries as shown in the balance sheets had since been repaid.

Mr. Taylor referred to the fall in the price of gold in the early part of this year, from Rs.294 per oz. to Rs. 233 per oz. and reported that there had been a further fall in the price recently and that sales are now being effected at around Rs. 220 per oz. This fall is having a serious effect upon the K.G.F. companies' earnings.

PRODUCTION

Mr. Taylor gave figures which showed a substantial increase in production of the K.G.F. companies, except Champion Reef, for the ten months to October 1952 compared with the production for the corresponding period of 1951. In the case of Champion Reef tonnage was down and production of gold only 374 oz. higher. This was largely due to severe rockbursts which have curtailed operations. Production would be further affected by the fire which broke out in the lower levels of Glen Ore Shoot on November 6. As a result of these setbacks and the fall in the price of gold, Mr. Taylor said the dividend of the Champion Reef (K.G.F.) Co. for 1952 is likely to be considerably lower than 15 per cent.

The Chairman said there is little prospect of any dividend for the current year from the Ooregum (K.G.F.) Co. For the Mysore Co. the dividend is likely to be meagre. The excellent developments and increase in ore reserves in the Nundydroog Mine, enabling the operating company to increase its output substantially, should make an increase in dividends from that company possible, provided the gold price does not fall further.

AMALGAMATION SCHEME

Mr. Taylor said the present rate of output of the Ooregum Mine could not be maintained and that under present conditions, mining has become unprofitable. He said that schemes for the Ooregum (K.G.F.) Co. to amalgamate with or to sell its undertaking to the Champion Reef (K.G.F.) Co. were being considered and when the ultimate scheme is complete particulars will be put before the members of the Champion Reef and Ooregum sterling companies. When the scheme has been settled it is the intention to liquidate the two sterling companies.

The Chairman referred to the Indian super tax which has to be paid by the sterling companies on any dividend received from the K.G.F. companies; this tax he said would be avoided by distributing the shares in the K.G.F. companies to the stockholders of the respective sterling companies. The Chairman also referred to the Indian super tax which has to be deducted from dividends declared by the sterling companies, and to U.K. income tax which also has to be deducted. This super tax could be avoided if stockholders opted to be assessed on the basis of their world incomes and obtained super-tax exemption certificates. Part of the U.K. income tax can be reclaimed as unilateral relief. A circular dealing with relief from these taxes was being issued with dividend warrants.

STERLING COMPANIES TO BE LIQUIDATED

Mr. Taylor said the Mysore and Nundydroog (K.G.F.) companies needed the financial support of the sterling companies, and while it had been hoped that by now the need for the U.K. investments would have passed, it is clear they will have to be retained a little longer. As soon as it is possible to do so, without jeopardizing the position of the Mysore and Nundydroog (K.G.F.) companies, it is the intention to liquidate the respective sterling companies.

When the Mysore, Champion Reef and Nundydroog companies are liquidated, the shares in the respective K.G.F. companies will be distributed to the members with the proceeds of sale of the respective U.K. investments. On the liquidation of the Ooregum Co., the proceeds of the sale of its investments and of its other assets resulting from the scheme to be adopted, will be distributed to its members.

The Reports and Accounts were adopted.

AMALGAMATED TIN MINES OF NIGERIA

CHAIRMAN'S STATEMENT

The Thirteenth Annual General Meeting of Amalgamated Tin Mines of Nigeria Ltd., was held on November 14 at 55-61, Moorgate, London, E.C., **Mr. J. R. Farquharson** presiding in the absence abroad of Mr. J. Ivan Spens.

Mr. W. C. Thomas, representing the secretaries (The Anglo-Oriental and General Investment Trust Ltd.), read the report of the auditors.

The following is Mr. Spens' statement, which had been circulated with the report and accounts:—

Accounts—Gross proceeds for the year were £3,622,328, against £3,461,695 in the previous year. Production of tin concentrate increased from 4,280 tons to 4,650 tons, but the average price received was lower at £947 per ton of metal, against £1,056 in the previous year. We have this year had the new scale of Nigerian royalties in force for the whole year and as shareholders will see royalty payments are up from £375,713 to £599,931, while Nigerian income tax is £490,000.

Taxation on profits is less by £286,000, which is due to a great extent to the substantial initial allowances on the year's expenditure on plant and equipment. Last year £150,000 was set aside, by appropriation from profit and loss account, as special depreciation for equipment on order, and this year a further £200,000 has been appropriated, making a total of £350,000. Of this sum £250,000 has been transferred to depreciation account, being the approximate amount of the initial allowances on the capital expenditure. This leaves £100,000 in the reserve, which your Board consider, in view of the present high prices of equipment—and further equipment is required—is a necessary precaution.

Excess profits levy applied to only the last three months of the company's financial year and it is estimated will amount to £31,000.

Shareholders will remember that last year I referred to the heavy scale of royalties in force in Nigeria and stated that I considered that the basis on which royalty should be charged was the net proceeds of the tin concentrates f.a.s. the Nigerian port of shipment and not on the price of the refined metal in the United Kingdom. While the Nigerian Government has this matter under consideration there has so far been no decision in the matter.

Production—As indicated above, production increased by 370 tons. The new equipment purchased to deal with the harder ground conditions is, after initial teething troubles, running satisfactorily.

Ore Reserves—After calculating new reserves brought in during the year and ore produced from areas outside the known reserves there is a net decrease in the figure of reserves of 1,094 tons, as against the 4,650 tons of ore mined.

LABOUR

There was no labour trouble during the year. Claims are at the present time being made but it is impossible to negotiate. There is one union which claims to represent the labour in the whole minesfield and another which claims to represent the labour employed by this company. These two unions have differing claims and refuse to collaborate or to agree to be bound by any settlement come to with the other union. Both unions are registered with and recognized by Government and I suggest that it is quite impossible for the management in Nigeria to deal with two unions on identical matters.

Keffi Tin Co. Ltd.—This wholly-owned subsidiary again had a satisfactory year. The accounts are attached.

Lead/Zinc Areas—Work so far has shown up no large ore body but a number of shoots may be proved from which a satisfactory production might be obtained. Further work is to be undertaken after the current wet season.

DIRECTORATE

Mr. A. L. Butler resigned from the Board as from September 30, 1952. His has been a long and valuable service both in Nigeria as general manager and for the last fifteen years in London and he takes with him our best wishes.

In his place the Board have appointed Mr. W. M. Warren, who was lately chairman of Anglo-Oriental (Malaya) Ltd., but who has also considerable experience of Nigeria and shareholders will be asked to confirm his appointment at the general meeting.

Staff—Shareholders will, I know, wish me to convey to the management in Nigeria and to the staff both European and African our full appreciation of their endeavours.

The report and accounts were adopted; the retiring directors, Mr. William Morley Warren, Mr. H. H. W. Boyes and Mr. Richmond Temple, were re-elected and the other formal business having been duly transacted, the proceedings terminated.

CEMENTATION CO. LTD.

RECORD TRADING PROFIT

The Thirty-Second Annual General Meeting of the Cementation Co. Ltd. will be held on December 10 at Grosvenor House, Park Lane, London, W.

The following is an extract from the statement by the chairman, **Mr. Harry Clayton,** circulated with the report and accounts:

I have pleasure in drawing your attention to the trading profit for the year to March 31, 1952, a net figure of £510,413, an increase over the previous year and again a record in the history of the company. I remind stockholders that figures appearing in the balance-sheet do not indicate the volume of work on which the company is employed and that the approximate value of uncompleted work on which the company (excluding subsidiaries) was engaged at March 31, 1952, was as last year £8,000,000.

You will realize that we have had the benefit for only three months of the new capital so willingly subscribed, and indeed over-subscribed, in December last year, but I must give you long-term warning that the higher level of taxation inevitably restricts the capacity for expansion out of profits and thus creates the possibility of the need for new capital to replace working assets at their increasingly greater cost and to provide working capital if the business is to maintain its level, let alone expand.

IMPORTANT CONTRACTS

Turning to our large civil engineering contracts, Loch Erne was officially opened on October 1, 1952. The Bowland Forest Tunnel for the Manchester Corporation is maintaining good progress, while the Lawers Project for the North of Scotland Hydro-Electric Board has made an excellent start. There may be some curtailment in future construction because of restrictions on capital expenditure which might affect us in common with all other contractors.

It is perhaps of note that we have undertaken substantial work in Israel during the year, and this while being carried out under difficult exchange conditions shows considerable promise. It includes work in an advisory capacity on silo construction which, as you will be aware, is one of our specialities.

In India and Pakistan our activities grow, and we are now reaching a position of being able to recoup our initial expenditure. It will be of particular interest that the repair works to the vitally important Sukkur Barrage are proceeding at an increased tempo and further contracts for ancillary work have been acquired.

Our mining work in this country and abroad is making good progress. This work is of course highly technical and I am glad to say that under our chief mining engineer we have a fine staff of engineers, foremen and sinkers who even in the most difficult mining conditions maintain their successful record. Our cementation turnover continues, but expansion has been affected by the postponement of capital schemes in which this specialized process is involved.

Our bored piling system has again been most successful and turnover has increased. I am very glad to report that our subsidiary, John Thom Ltd., has contributed greatly to our success in this field.

OVERSEAS ACTIVITIES

Our South African company has again had a most successful year. In its second year the Cementation Co. (Ireland) Ltd. continues to make good progress and there is every prospect of further expansion.

In the Geophysical group there is a gratifying expansion of turnover leading us to expect that we will soon be making profits. In this country and in the sterling area in general, considerable work has been carried out and the amount of prospective work is encouraging. At present surveys are being made in East Pakistan, India, Kuwait and Algeria as well as here. The Geo-Technical Development Co. Ltd. in Canada, which specializes in mineral exploration, has undertaken an increasing number of contracts with profitable results. The Geophysical Prospecting Co. Canada Ltd. operating from Calgary in Alberta, has inevitably encountered during its first year organization difficulties. I need not emphasize the potentialities of oil exploration which have been given so much publicity.

The Cementation Co. (Canada) Ltd., our contracting company in Canada, has continued to carry out specialized work. It has made a modest net profit on a small turnover, but it must be remembered that its expansion cannot be a short-term project.

The use of the Colcrete Process, in which we are interested with Colcrete Ltd., as you know is continually extending.

Our French associated company, Les Travaux Souterrains, has had a most successful year both in France and North Africa. Owing to its large expansion it has now become necessary to increase its capital and to issue new shares to the extent of some Fcs.80,000,000, of which we will take up our due proportion.

We have pleasure in proposing a dividend at the rate of 15 per cent on the Ordinary capital in respect of the year under review.

CONSOLIDATED MURCHISON (TRANSVAAL) GOLDFIELDS AND DEVELOPMENT COMPANY, LIMITED

(Incorporated in the Union of South Africa)

Directors' Report for the Quarter ended September 30, 1952

The following is the report on the work done during the quarter ended September 30, 1952:—

Tons Crushed	**23,670**
Estimated Profit from Antimony and Gold	**£64,534**
Estimated Taxation	**£10,000**

In addition, revenue of **£314** was received during the quarter in respect of increased revenue from the sales of gold at higher than standard prices.

The capital expenditure during the period amounted to **£2,321.**

During the quarter development operations were largely directed to locating possible extensions of the ore bodies as at present known. **1,775** ft. of development was completed outside such ore bodies.

The development footage in the ore body was, accordingly, materially reduced, **130** ft. being accomplished. The footage sampled amounted to **120** ft., which was payable on account of the combined gold and antimony content.

A further **335** ft. were accomplished in a lens known to carry gold values only. **250** ft. were sampled and gave an average value of **4.05** dwt. per ton over a width of **69.8** in.

In determining the payable footage the prices of gold and antimony as at September 30, 1952, have been used.

The development figures mentioned above are the actual result of the sampling of development work in the ore body; no allowance has been made for modifications which may be necessary when computing the ore reserves.

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Obituary

SIR WALTER MASSEY-GREENE

We regret to learn of the death in Australia, after an operation towards the end of last week, of Sir Walter Massey-Greene, former Australian Minister for Defence and Minister for Trade and Customs.

Sir Walter was born at Wimbledon in 1874 and migrated to Australia in 1891 where for some years he was with the Bank of New South Wales, after which he became interested in agricultural and pastoral concerns entering the Commonwealth Parliament in 1910. He was a Whip in the War Government of the late W. M. Hughes and subsequently Minister of Trade and Customs, and Minister for Defence and the Navy. He was elected to the Senate on several occasions the last being in 1931 and was created a K.C.M.G. in 1933. After that date he devoted himself largely to finance, more particularly that of gold mining companies and played a leading part in the formation of Australian companies formed to take over concerns previously operated from London. Earlier he had effected the reconstruction of the Bendigo Mines at a time when attention was being directed to the old Victorian field and to the deep leads of the Loddon valley neighbourhood.

His chief and most notable achievement was the amalgamation of the Gold Exploration and Finance Co. of Australia with the Western Mining Corporation; a fusion which covered the Gold Mines of Kalgoorlie, Gold Mines of Australia Ltd., the New Coolgardie Gold Mines N.L., Central Norseman Gold Corporation N.L., Great Western Consolidated N.L., all in Western Australia, and in Victoria the Central Victoria Dredging Co. N.L. and the Victoria Gold Dredging Co. N.L.

RHODESIAN ANGLO AMERICAN LIMITED

Abridged Report of the Directors for the year ended June 30th, 1952

ACCOUNTS

The Profit for the year to June 30, 1952, after charging all expenses was		£4,017,754
Taxation payable was estimated at		63,001
(The Company's income consists mainly of dividends paid out of profits on which Northern Rhodesian Income Tax has already been paid.)		
		3,954,753
Profits unappropriated at June 30, 1951, were		476,382
Making a total available of		4,431,135
An Interim Dividend of 1s. 3d. paid on May 31, 1952, amounted to	£744,576	
The Directors recommend the payment of a Final Dividend of 5s. absorbing	2,978,304	
		3,722,880
Leaving profits unappropriated amounting to		£708,255

INVESTMENTS IN SUBSIDIARY COMPANIES

RHOKANA CORPORATION LTD. Year ended June 30, 1952. **Capital.**—The holdings of Rhodesian Anglo American Ltd. were increased by the purchase of a further £7 "A" Stock to £1,285,123 Ordinary Stock and £24,762 "A" Stock, representing 52.395 per cent of the total Ordinary and "A" Stock in issue.

Accounts.—The net profit for the year, after taxation, including an exceptional profit of £400,000 arising from depletion of normal stocks, was £7,860,922 (Against £6,765,395 for the preceding year) which the Directors have dealt with as follows:

Appropriations to:		
Preference Share Redemption Fund	£7,500	
General Reserve	1,800,000	
Sales Equalization Reserve (in respect of the exceptional profit referred to above)	400,000	
Preference Dividends	62,484	
Ordinary Dividends:		
Interim—10s. per £1 Stock Unit	1,250,001	
Final—35s. per £1 Stock Unit	4,375,003	
		7,894,988
Reducing Unappropriated Profits from £488,415 to £454,349, i.e., by		34,066

Copper Production.—Total saleable output for the year was 82,764 l.tons (against 74,179 l.tons in the previous year) of which 25,854 tons (5,314) were in the form of Blister Copper and 56,910 tons (68,865) in the form of Electrolytic Copper. The increase was however achieved by running down stocks of copper in process which had accumulated in the previous year, and the output of Molten Copper from the Smelter was 75,562 l.tons against 83,165 l.tons the previous year. The total Smelter output during the year, including production for account of Nchanga Consolidated Copper Mines Ltd., was 136,674 l.tons as against 123,146 l.tons for the previous year.

Production in all departments was adversely affected by coal shortages, but the total Smelter production nevertheless set a new record.

Cobalt Production.—1,698 s.tons of cobalt alloy containing 645 s.tons of cobalt were produced during the year as against 1,978 s.tons of alloy containing 747 s.tons of cobalt during the preceding year.

The Electrolytic Cobalt Refinery was completed early in 1952 but operational difficulties delayed production and the first electrolytic metal was not railed for shipment until September, 1952.

Copper Price.—The American f.a.s. Export price for Electrolytic Copper from July, 1951 until May, 1952, remained at 27.50c. per lb. Towards the end of May the price moved upwards and during June ranged between 30 and 37c. per lb. The price receivable by the company from the Ministry of Materials continued throughout the year to be based on the monthly average of the American price, applied to deliveries three months later. The wide price fluctuations in June in the official American quotation, however, led to a special price being negotiated with the Ministry for that month, to apply to September deliveries; special prices were later agreed with the Ministry for subsequent months.

Coal Supplies.—Coal deliveries again failed by a large margin to reach the level of requirements and the burning of wood in place of coal continues on an even more extensive scale than hitherto.

NCHANGA CONSOLIDATED COPPER MINES LTD. Year ended March 31, 1952. **Capital.**—The company's holdings remain unchanged at £1,490,581 representing 21.294 per cent of the Stock in issue. The company's interest, direct and through Rhokana, in the Nchanga capital remains unchanged at 38.921 per cent.

Accounts.—The net profit for the year, after taxation, including an exceptional profit of £750,000 arising from depletion of normal stocks, was £6,255,600 (against £3,112,917 for the preceding year) which the Directors have dealt with as follows:

General Reserve	£2,000,000	
Sales Equalization Reserve (in respect of the exceptional profit referred to above)	750,000	
Dividend of 10s. per £1 Stock Unit	3,500,000	
		6,250,000
Increasing Unappropriated Profits from £104,516 to £110,116, i.e., by		£5,600

Copper Production.—Production of Blister and Electrolytic Copper during the year to March 31, 1952, was 68,816 l.tons against 54,550 l.tons the previous year. Plant extensions which are planned to raise production to 108,000 l.tons per annum are expected to be completed during the early part of 1953.

RHODESIA COPPER REFINERIES LTD. (Year to June 30, 1952). **Capital.**—Rhodesian Anglo American Ltd. has no direct holding in the Refinery Company though it controls the latter indirectly through Rhokana and Nchanga. Its indirect interest remains at 45.658 per cent of the Ordinary Stock.

Accounts.—The net profit, after taxation, for the year amounted to £85,578, against £82,776 for the preceding year. After appropriating £25,300 to the Preference Share Redemption Fund and paying Preference Dividends amounting to £63,229, profits of £37,337 were carried forward against £40,288 brought forward from the previous year.

Production.—The production of Electrolytic Copper for the year was 102,269 l.tons against 96,371 l.tons for the previous year.

Extensions.—Owing to delays in the arrival of equipment, it is not now expected that the extensions for production of vertically cast copper will be in operation until the middle of 1953. When the vertical casting plant is in operation the available capacity of the Electrolytic Refinery will, it is anticipated, enable virtually the whole of the production from Rhokana and Nchanga to be converted into electrolytic shapes, of which a substantial proportion will be vertically cast in special high-quality shapes.

OTHER INVESTMENTS

MUFULIRA COPPER MINES LTD.—The company's direct interest in Mufulira, and its indirect interest through Rhokana's shareholding, remained unchanged during the year.

During the year the company received the following dividends from Mufulira:

Second Interim Dividend for year to June 30, 1951, of 4s. 3d. per £1 share.
Final Dividend for year to June 30, 1951, of 1s. per share.
Interim Dividend for year to June 30, 1952, of 3s. per share.
A final dividend of 5s. 3d. per share for the year to June 30, 1952, recommended by the Mufulira Board in October, 1952, will appear in the Accounts for the current financial year.

THE RHODESIA BROKEN HILL DEVELOPMENT CO. LTD.—The company's holding remained unchanged at £228,171 stock. The Accounts for the year to December 31, 1951, show a profit after taxation of £3,609,436 (against £1,753,736 for 1950) out of which dividends totalling 4s. 6d. per 5s. unit were paid against 2s. 3d. for 1950.

COPIES OF THE FULL ANNUAL REPORT AND ACCOUNTS OF THE COMPANY AND OF THE OPERATING SUBSIDIARY COMPANIES MAY BE OBTAINED FROM THE HEAD OFFICE, KITWE, OR FROM THE TRANSFER OFFICES AT 44 MAIN STREET, JOHANNESBURG, AND 11 OLD JEWRY, LONDON, E.C.2.

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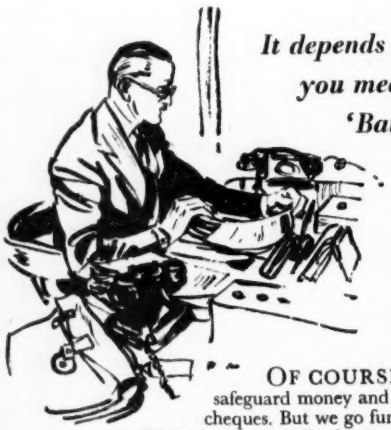

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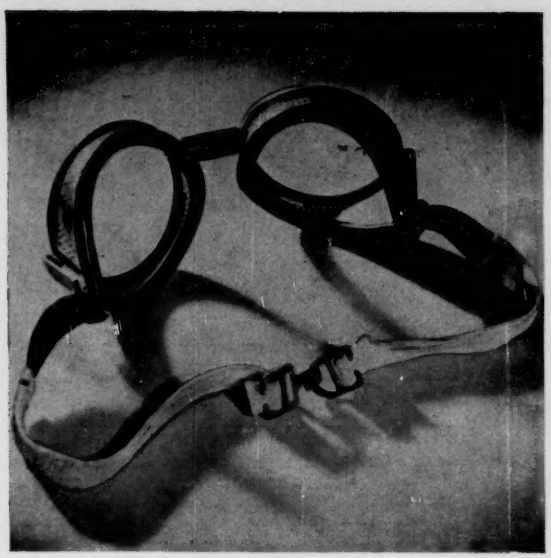

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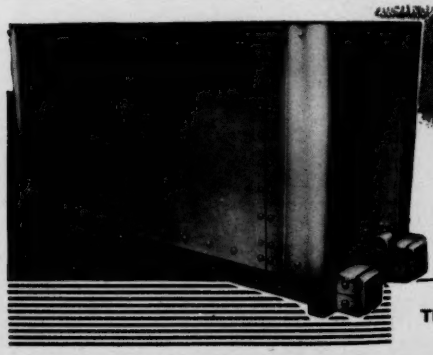

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